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DRILL SLEEVES

MORSE

No. 202—Morse Taper

Used for reducing size of spindle hole allowing the use of tools with shanks smaller than hole in spindle.



Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.	Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.
1 to 2	\$1.80	1	2	1/2	2 to 5	\$4.40	2	5	3
1 to 3	2.40	1	3	1/2	3 to 4	3.00	3	4	7/8
1 to 4	3.00	1	4	1 1/2	3 to 5	4.40	3	5	2 5/8
1 to 5	4.40	1	5	3 1/4	4 to 5	4.40	4	5	2 3/8
2 to 3	2.40	2	3	3/8	4 to 6	10.00	4	6	6 1/4
2 to 4	3.00	2	4	1	5 to 6	10.00	5	6	5 1/2



Style A



Style B

No. 260

With Morse Taper Holes and Brown and Sharpe Taper Outside

Morse Taper Hole Nos.	B. & S. Outside Taper Nos.	Style A, Each	Style B, Each	Thread in End, Style B
1	7	\$2.40	\$2.40	3/8, 16, L.H.N.C.
1	9	3.25	3.50	1/2, 14, L.H.N.C.
2	9	3.25	3.50	1/2, 14, L.H.N.C.
1	10	4.00	4.25	1/2, 14, L.H.N.S.
2	10	4.00	4.25	1/2, 14, L.H.N.S.
3	10	4.00	4.25	1/2, 14, L.H.N.S.
1	11	5.25	5.50	3/4, 12, L.H.N.S.
2	11	5.25	5.50	3/4, 12, L.H.N.S.
3	11	5.25	5.50	3/4, 12, L.H.N.S.
4	11	5.25	5.50	3/4, 12, L.H.N.S.

COLLIS-USE-EM-UP

No. 100—Morse Taper

For drills with broken shanks; a flat surface may be ground on remaining portion of shank for sleeve.



Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.	Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.
1 to 2	\$1.80	1	2	1/2	2 to 4	\$3.00	2	4	1
1 to 3	2.40	1	3	1/2	3 to 4	3.00	3	4	7/8
2 to 3	2.40	2	3	3/8	4 to 5	4.40	4	5	2 1/2

DRILL SOCKETS

COLLIS-USE-EM-UP

No. 100A—Morse Taper

For drills with broken shanks; a flat surface or remaining portion of shank permits a drive, even if only three-quarter of shank remains.



Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.	Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.
1 to 2	\$2.00	1	2	5/8	2 to 4	\$3.20	2	4	2 3/4
1 to 3	2.50	1	3	1 1/4	3 to 4	3.20	3	4	2 3/4
2 to 3	2.50	2	3	1 1/2	4 to 5	4.80	4	5	6 1/4

MORSE

No. 201

For Morse Taper Shank Tools



Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.	Size Nos.	Each	Hole Nos.	Shank Nos.	Wt., Lbs.
1 to 2	\$2.00	1	2	5/8	3 to 4	\$3.20	3	4	2 3/4
1 to 3	2.50	1	3	1 1/4	3 to 5	4.80	3	5	6 7/8
1 to 4	3.20	1	4	2 1/4	4 to 3	4.80	4	3	3 3/8
1 to 5	4.80	1	5	5 3/8	4 to 4	4.80	4	4	4 1/2
2 to 3	2.50	2	3	1 1/2	4 to 5	4.80	4	5	6 1/4
2 to 4	3.20	2	4	2 3/8	4 to 6	12.00	4	6	15 1/4
2 to 5	4.80	2	5	5 3/8	5 to 4	12.00	5	4	8 3/8
3 to 2	3.20	3	2	1 5/8	5 to 5	12.00	5	5	10 1/4
3 to 3	3.20	3	3	2	5 to 6	12.00	5	6	15 1/2



No. 200

For Morse Taper Shank Tools

Plugs are furnished with these sockets for turning shanks.

Nos.	Each	Hole Taper, Nos.	Shank Dia., in.	Shank Length, in.	Length Over all, in.	Holds Drills, in.
1	\$1.20	1	1 1/8	4	7	1/4 to 1 1/8
2	1.80	2	1 1/4	4 1/4	8	3/8 to 1 1/4
3	2.50	3	1 1/2	5 3/8	10	1/2 to 1 1/2
4	4.00	4	2	6 3/8	12	1 1/4 to 2
5	7.50	5	2 5/8	9	16	2 1/4 to 3
6	14.00	6	3 5/8	12 3/4	22	3 1/4 to 6

DRILL DRIFTS

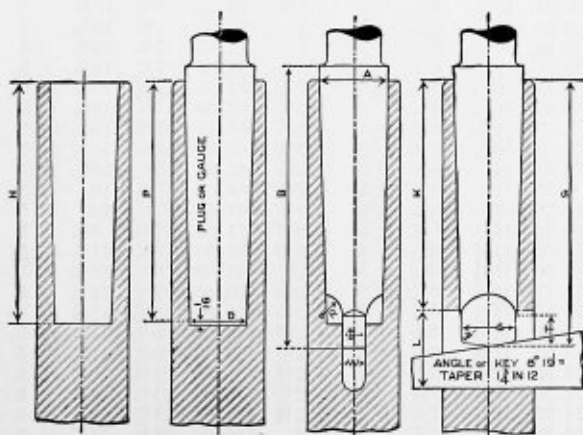
No. 210 Morse

For sleeves and sockets. Drop forged.



Size	1	2	3	4	5	6
For sleeve or socket, No.	1	2	3	4	5	6
Each	\$0.30	.35	.40	.50	.60	.75

MORSE TAPERS



No. of Taper	Diam. of Plug at Small End	Diam. at End of Socket	Shank		Depth of Hole	Standard Plug Depth	Tongue					Keyway			Taper Per Foot
			Whole Length of Shank	Shank Depth			Thickness of Tongue	Length of Tongue	Rad. of Mill for Tongue	Diam. of Tongue	Radius of Tongue	Width of Keyway	Length of Keyway	End of Socket to Keyway	
D	A	B	S	H	P	t	T	R	d	a	W	L	K		
0	.252	.3561	2 1/2	2 3/8	2 3/8	2	.1562	1/4	3/8	.235	.04	.160	1 1/8	.62460	
1	.369	.475	2 3/8	2 7/8	2 7/8	2 1/8	.2031	3/8	1/2	.343	.05	.213	3/4	.59858	
2	.572	.700	3 1/8	3 1/4	3 1/4	2 3/8	.250	1/2	3/4	.44	.06	.320	1	.59941	
3	.778	.988	3 7/8	3 3/4	3 3/4	3 3/8	.3125	3/4	1	.54	.08	.422	1 1/8	.60235	
4	1.020	1.231	4 1/8	4 1/4	4 1/4	4 1/8	.4687	3/4	1 1/8	.71	.10	.478	1 1/4	.62326	
5	1.475	1.748	6 1/8	5 7/8	5 7/8	5 7/8	.6250	3/4	1 3/8	1.0	.12	.635	1 1/2	.63151	
6	2.116	2.494	8 3/8	8 1/4	7 7/8	7 7/8	.750	1 1/8	1 1/2	1.15	.15	.760	1 3/4	.62565	
7	2.750	3.270	11 5/8	11 1/4	10 3/8	10	1.1250	1 3/8	2	1.5	.18	1.135	2 1/8	.6240	

TWIST DRILLS **MORSE TAPER SHANK**



No. 302—Carbon Steel

Sizes not listed are special.

Dia., in.	Each, carbon steel	Lgth. over all, in.	Lgth. twist, in.	Morse taper shank	Dia., in.	Each, carbon steel	Lgth. over all, in.	Lgth. twist, in.	Morse taper shank
1/8	\$0.45	5 1/8	1 1/8	1	1 1/8	\$4.75	11 7/8	7 1/4	3
3/16	.45	5 3/8	1 3/8	1	1 3/8	5.00	12	7 3/8	3
1/4	.45	5 3/8	1 3/8	1	1 3/8	5.00	12	7 3/8	3
5/16	.50	5 3/8	2 1/8	1	1 3/8	5.25	12 1/8	7 1/2	3
3/8	.50	5 3/8	2 1/8	1	1 3/8	5.25	12 3/8	7 1/2	3
7/16	.55	6	2 3/8	1	1 3/8	5.50	12 1/2	7 3/8	3
1/2	.55	6	2 3/8	1	1 3/8	5.50	12 1/2	7 3/8	3
9/16	.60	6 1/8	2 3/8	1	1 3/8	5.75	14 1/8	8 1/8	4
5/8	.60	6 1/8	2 3/8	1	1 3/8	5.75	14 1/8	8 1/8	4
3/4	.65	6 1/8	2 3/8	1	1 3/8	6.00	14 1/8	8 1/8	4
7/8	.65	6 1/8	2 3/8	1	1 3/8	6.00	14 1/8	8 1/8	4
1	.70	6 3/8	3 1/8	1	1 3/8	6.25	14 3/8	8 1/8	4
1 1/8	.70	6 3/8	3 1/8	1	1 3/8	6.25	14 3/8	8 1/8	4
1 1/4	.75	6 3/8	3 1/8	1	1 3/8	6.50	14 3/8	8 1/8	4
1 1/2	.75	6 3/8	3 1/8	1	1 3/8	6.50	14 3/8	8 1/8	4
1 3/4	.80	6 3/8	3 1/8	1	1 3/8	7.00	14 3/8	8 1/8	4
2	.80	6 3/8	3 1/8	1	1 3/8	7.00	14 3/8	8 1/8	4
2 1/8	.90	7	3 1/8	1	1 3/8	7.50	14 3/8	9 1/8	4
2 1/4	.90	7	3 1/8	1	1 3/8	7.50	14 3/8	9 1/8	4
2 1/2	1.00	7 1/4	3 1/8	1	1 3/8	8.00	14 3/8	9 1/8	4
2 3/4	1.00	7 1/4	3 1/8	1	1 3/8	8.00	14 3/8	9 1/8	4
3	1.10	7 1/2	4 1/8	1	1 3/8	8.50	15	9 1/8	4
3 1/8	1.10	7 1/2	4 1/8	1	1 3/8	8.50	15	9 1/8	4
3 1/4	1.20	7 3/4	4 1/8	1	1 3/8	9.00	15	9 1/8	4
3 1/2	1.20	7 3/4	4 1/8	1	1 3/8	9.00	15	9 1/8	4
3 3/4	1.30	8	4 1/8	1	1 3/8	9.50	15 1/4	9 1/8	4
4	1.30	8	4 1/8	1	1 3/8	9.50	15 1/4	9 1/8	4
4 1/8	1.40	8 1/4	4 1/8	1	1 3/8	10.00	15 1/2	9 1/8	4
4 1/4	1.40	8 1/4	4 1/8	1	1 3/8	10.00	15 1/2	9 1/8	4
4 1/2	1.50	8 3/4	4 1/8	2	1 3/8	10.50	15 3/4	9 1/8	4
4 3/4	1.50	8 3/4	4 1/8	2	1 3/8	10.50	15 3/4	9 1/8	4
5	1.60	8 3/4	4 1/8	2	1 3/8	11.00	15 3/4	10 1/8	4
5 1/8	1.60	8 3/4	4 1/8	2	1 3/8	11.00	15 3/4	10 1/8	4
5 1/4	1.70	9	5 1/8	2	1 3/8	11.50	15 3/4	10 1/8	4
5 1/2	1.70	9	5 1/8	2	1 3/8	11.50	15 3/4	10 1/8	4
5 3/4	1.80	9 1/4	5 1/8	2	1 3/8	12.00	15 3/4	9 5/8	4
6	1.80	9 1/4	5 1/8	2	1 3/8	12.00	15 3/4	9 5/8	4
6 1/8	1.90	9 1/4	5 1/8	2	1 3/8	12.50	16 1/4	10 1/8	4
6 1/4	1.90	9 1/4	5 1/8	2	1 3/8	12.50	16 1/4	10 1/8	4
6 1/2	2.00	9 3/4	5 1/8	2	1 3/8	13.25	16 1/4	10 1/8	4
6 3/4	2.00	9 3/4	5 1/8	2	1 3/8	14.00	16 1/4	10 1/8	4
7	2.10	9 3/4	6	2	1 3/8	14.75	16 1/4	10 1/8	4
7 1/8	2.10	9 3/4	6	2	1 3/8	15.50	16 1/4	10 1/8	4
7 1/4	2.20	10	6 1/8	2	1 3/8	16.25	16 1/4	10 1/8	4
7 1/2	2.20	10	6 1/8	2	1 3/8	17.00	16 1/4	10 1/8	4
7 3/4	2.40	10	6 1/8	2	1 3/8	17.75	16 1/4	10 1/8	4
8	2.40	10	6 1/8	2	2	18.50	16 1/4	10 1/8	4
8 1/8	2.60	10	6 1/8	2	2 1/8	19.25	17 1/8	10 3/8	5
8 1/4	2.60	10	6 1/8	2	2 1/8	20.00	17 1/8	10 3/8	5
8 1/2	2.80	10	6 1/8	2	2 1/8	20.75	17 1/8	10 3/8	5
8 3/4	2.80	10	6 1/8	2	2 1/8	21.50	17 1/8	10 3/8	5
9	3.00	10 3/8	6 1/8	3	2 1/8	22.25	17 1/8	10 3/8	5
9 1/8	3.00	10 3/8	6 1/8	3	2 1/8	23.00	17 1/8	10 3/8	5
9 1/4	3.25	11	6 3/8	3	2 1/8	23.75	17 1/8	10 3/8	5
9 1/2	3.25	11	6 3/8	3	2 1/8	24.50	17 1/8	10 3/8	5
9 3/4	3.50	11	6 3/8	3	2 1/8	26.00	17 1/8	10 3/8	5
10	3.50	11	6 3/8	3	2 1/8	27.50	17 1/8	9 5/8	5
10 1/8	3.75	11 1/8	6 1/8	3	2 1/8	29.00	18 1/8	11 1/4	5
10 1/4	3.75	11 1/8	6 1/8	3	2 1/8	30.50	18 1/8	11 1/4	5
10 1/2	4.00	11 3/4	6 3/8	3	2 1/8	32.00	19 1/8	11 3/4	5
10 3/4	4.00	11 3/4	6 3/8	3	2 1/8	34.00	19 1/8	11 3/4	5
11	4.25	11 3/4	6 3/8	3	2 1/8	36.00	20 3/8	12 1/2	5
11 1/8	4.25	11 3/4	6 3/8	3	2 1/8	38.00	20 3/8	12 1/2	5
11 1/4	4.50	11 3/4	7 1/8	3	2 1/8	40.50	21 1/8	13 1/4	5
11 1/2	4.50	11 3/4	7 1/8	3	2 1/8	43.00	21 1/8	13 1/4	5
11 3/4	4.75	11 3/4	7 1/8	3	2 1/8	45.50	21 3/8	13 3/4	5
12	4.75	11 3/4	7 1/8	3	3	48.00	21 3/8	13 3/4	5

TWIST DRILLS **MORSE TAPER SHANK**



No. 1302—High Speed Steel

Forged type. Sizes not listed are special.

Dia., in.	Each, high speed steel	Lgth. over all, in.	Lgth. twist, in.	Morse taper shank	Dia., in.	Each, high speed steel	Lgth. over all, in.	Lgth. twist, in.	Morse taper shank
1/8	\$1.00	5 3/8	1 1/8	1	1 3/8	\$15.00	12 7/8	7 3/4	4
3/16	1.10	5 3/8	1 1/8	1	1 1/4	15.75	13	7 3/4	4
1/4	1.10	5 3/8	1 1/8	1	1 1/8	15.75	13	7 3/4	4
5/16	1.25	5 3/8	2 1/8	1	1 1/4	16.50	13 1/8	7 3/4	4
3/8	1.25	5 3/8	2 1/8	1	1 3/8	16.50	13 1/8	7 3/4	4
7/16	1.35	6	2 3/8	1	1 1/4	18.00	13 1/2	7 3/4	4
1/2	1.35	6	2 3/8	1	1 1/4	18.00	13 1/2	7 3/4	4
9/16	1.40	6 1/8	2 1/8	1	1 1/4	20.00	14 1/8	8 1/8	4
5/8	1.40	6 1/8	2 1/8	1	1 3/8	20.00	14 1/8	8 1/8	4
3/4	1.50	6 1/8	2 1/8	1	1 1/2	20.75	14 1/4	8 1/8	4
7/8	1.50	6 1/8	2 1/8	1	1 1/8	20.75	14 1/4	8 1/8	4
1	1.60	6 3/8	3 1/8	1	1 1/2	21.50	14 3/8	8 1/8	4
1 1/8	1.60	6 3/8	3 1/8	1	1 1/8	21.50	14 3/8	8 1/8	4
1 1/4	1.70	6 3/8	3 1/8	1	1 1/2	22.25	14 3/8	8 1/8	4
1 1/2	1.70	6 3/8	3 1/8	1	1 1/2	22.25	14 3/8	8 1/8	4
1 3/4	1.90	6 3/8	3 1/8	1	1 3/8	23.00	14 3/8	8 1/8	4
2	1.90	6 3/8	3 1/8	1	1 1/8	23.00	14 3/8	8 1/8	4
2 1/8	2.10	7	3 1/8	1	1 1/2	23.75	14 3/8	9 1/8	4
2 1/4	2.10	7	3 1/8	1	1 1/8	23.75	14 3/8	9 1/8	4
2 1/2	2.30	7 1/4	3 1/8	1	1 1/2	24.50	14 3/8	9 1/8	4
2 3/4	2.30	7 1/4	3 1/8	1	1 1/8	24.50	14 3/8	9 1/8	4
3	2.50	7 1/2	4 1/8	1	1 1/2	25.25	15	9 1/8	4
3 1/8	2.50	7 1/2	4 1/8	1	1 1/8	25.25	15	9 1/8	4
3 1/4	2.95	8 1/4	4 1/8	2	1 1/2	28.75	16 3/8	9 5/8	5
3 1/2	2.95	8 1/4	4 1/8	2	1 1/8	28.75	16 3/8	9 5/8	5
3 3/4	3.25	8 1/2	4 1/8	2	1 1/2	30.75	16 3/8	9 5/8	5
4	3.25	8 1/2	4 1/8	2	1 1/8	30.75	16 3/8	9 5/8	5
4 1/8	3.75	8 3/4	4 1/8	2	1 1/2	32.75	16 3/8	9 5/8	5
4 1/4	3.75	8 3/4	4 1/8	2	1 1/8	32.75	16 3/8	9 5/8	5
4 1/2	4.00	8 3/4	4 1/8	2	1 1/2	34.00	17	10	5
4 3/4	4.00	8 3/4	4 1/8	2	1 1/8	34.00	17	10	5
5	4.25	8 3/4	4 1/8	2	1 1/2	35.25	17 1/8	10 1/8	5
5 1/8	4.25	8 3/4	4 1/8	2	1 1/8	35.25	17 1/8	10 1/8	5
5 1/4	4.75	9	5 1/8	2	1 1/2	36.50	17 1/8	10 1/8	5
5 1/2	4.75	9	5 1/8	2	1 1/8	36.50	17 1/8	10 1/8	5
5 3/4	5.25	9 1/4	5 1/8	2	1 1/2	37.75	17 1/8	10 1/8	5
6	5.25	9 1/4	5 1/8	2	1 1/8	37.75	17 1/8	10 1/8	5
6 1/8	5.75	9 1/2	5 1/8	2	1 1/2	39.00	17 1/8	10 1/8	5
6 1/4	5.75	9 1/2	5 1/8	2	1 1/8	39.00	17 1/8	10 1/8	5
6 1/2	6.25	9 3/4	5 1/8	2	1 1/2	40.25	17 1/8	10 1/8	5
6 3/4	6.25	9 3/4	5 1/8	2	1 1/8	41.50	17 1/8	10 1/8	5
7	6.50	9 3/4	6	2	1 1/2	42.75	17 1/8	10 1/8	5
7 1/8	6.50	9 3/4	6	2	1 1/8	45.00	17 3/8	10 3/8	5
7 1/4	7.25	10 3/8	6 1/8	3	1 1/2	46.25	17 3/8	10 3/8	5
7 1/2	7.25	10 3/8	6 1/8	3	1 1/8	47.50	17 3/8	10 3/8	5
7 3/4	7.65	10 3/8	6 1/8	3	1 1/2	48.75	17 3/8	10 3/8	5
8	7.65	10 3/8	6 1/8	3	2	50.00	17 3/8	10 3/8	5
8 1/8	8.05	10 3/8	6 1/8	3	2 1/8	51.75	17 3/8	10 3/8	5
8 1/4	8.05	10 3/8	6 1/8	3	2 1/8	53.50	17 3/8	10 3/8	5
8 1/2	8.45	10 3/8	6 1/8	3	2 1/8	55.25	17 3/8	10 3/8	5
8 3/4	8.45	10 3/8	6 1/8	3	2 1/8	57.00	17 3/8	10 3/8	5
9	8.85	10 3/8	6 1/8	3	2 3/8	58.75	17 3/8	10 3/8	5
9 1/8	8.85	10 3/8	6 1/8	3	2 1/8	60.50	17 3/8	10 3/8	5
9 1/4	9.65	11	6 3/8	3	2 3/8	62.25	17 3/8	10 3/8	5
9 1/2	9.65	11	6 3/8	3	2 1/4	64.00	17 3/8	10	5
1	10.25	11	6 3/8	3	2 3/8	67.50	17 3/8	10	5
1 1/8	10.25	11	6 3/8	3	2 1/8	71.00	17 3/8	9 7/8	5
1 1/4	11.00	11 1/8	6 1/8	3	2 3/8	87.50	18 3/4	11 1/4	5
1 1/2	11.00	11 1/8	6 1/8	3	2 1/4	91.00	18 3/4	11 1/4	5
1 3/4	11.75	11 1/4	6 5/8	3	2 3/8	100.00	19 1/2	11 7/8	5
2	11.75	11 1/4	6 5/8	3	2 1/8	105.00	19 1/2	11 3/4	5
2 1/8	12.80	12 1/4	6 3/8	4	2 3/8	115.50	20 3/8	12 5/8	5
2 1/4	13.25	12 1/4	6 1/4	4	2 1/8	120.50	20 3/8	12 1/2	5
2 1/2	13.25	12 1/4	6 1/4	4	2 1/4	129.50	21 1/8	13 1/4	5
2 3/4	14.25	12 3/4	7 1/8	4	2 3/8	135.00	21 1/8	13 1/4	5
3	14.25	12 3/4	7 1/8	4	2 1/4	142.50	21 3/8	13 1/4	5
3 1/8	15.00	12 3/4	7 1/8	4	3	150.00	21 3/8	13 1/4	5

TWIST DRILLS **MORSE STRAIGHT SHANK TAPER LENGTH**



No. 314—Carbon Steel

No. 1314—High Speed Steel

Diam., in.	Each Carbon Steel	Each High Speed Steel	Length over all, in.	Length twist, in.	Decimal equivalent	Diam., in.	Each Carbon Steel	Each High Speed Steel	Length over all, in.	Length twist, in.	Decimal equivalent
$\frac{1}{16}$	\$0.45	\$1.00	5 $\frac{1}{8}$	2 $\frac{1}{2}$	.125	$\frac{1}{16}$	\$2.20	\$6.75	10	6 $\frac{3}{8}$	.8125
$\frac{3}{32}$	.45	1.10	5 $\frac{3}{8}$	3	.1406	$\frac{3}{32}$	2.40	7.15	10	6 $\frac{3}{8}$	.8281
$\frac{1}{8}$	.45	1.10	5 $\frac{3}{8}$	3	.1562	$\frac{1}{8}$	2.40	7.15	10	6 $\frac{3}{8}$	.8437
$\frac{9}{32}$	.50	1.25	5 $\frac{3}{8}$	3 $\frac{1}{2}$	.1718	$\frac{9}{32}$	2.60	7.50	10	6 $\frac{3}{8}$	.8593
$\frac{3}{16}$	.50	1.25	5 $\frac{3}{8}$	3 $\frac{1}{2}$	.1875	$\frac{3}{16}$	2.60	7.50	10	6 $\frac{3}{8}$	.875
$\frac{7}{32}$	.55	1.35	6	4	.2031	$\frac{7}{32}$	2.80	7.85	10	6 $\frac{3}{8}$	.8906
$\frac{1}{4}$	.55	1.35	6	4	.2187	$\frac{1}{4}$	2.80	7.85	10	6 $\frac{3}{8}$	.9062
$\frac{5}{16}$	.60	1.40	6 $\frac{1}{8}$	4	.2343	$\frac{5}{16}$	3.00	8.85	10 $\frac{3}{4}$	7	.9218
$\frac{3}{8}$	.60	1.40	6 $\frac{1}{8}$	4	.25	$\frac{3}{8}$	3.00	8.85	10 $\frac{3}{4}$	7	.9375
$\frac{7}{16}$	.65	1.50	6 $\frac{1}{4}$	4	.2656	$\frac{7}{16}$	3.25	9.65	11	7 $\frac{1}{8}$	.9531
$\frac{1}{2}$	.65	1.50	6 $\frac{1}{4}$	4	.2812	$\frac{1}{2}$	3.25	9.65	11	7 $\frac{1}{8}$	.9687
$\frac{9}{16}$	.70	1.60	6 $\frac{3}{8}$	4 $\frac{1}{2}$	.2968	$\frac{9}{16}$	3.50	10.25	11	7 $\frac{1}{8}$	.9843
$\frac{5}{8}$	.70	1.60	6 $\frac{3}{8}$	4 $\frac{1}{2}$	.3125	1	3.50	10.25	11	7 $\frac{1}{8}$	1.
$\frac{11}{16}$	.75	1.70	6 $\frac{1}{2}$	4 $\frac{1}{2}$	.3281	$\frac{1}{8}$	3.75	11.00	11 $\frac{1}{2}$	7 $\frac{3}{8}$	1.0156
$\frac{3}{4}$	.75	1.70	6 $\frac{1}{2}$	4 $\frac{1}{2}$	.3437	$\frac{1}{4}$	3.75	11.00	11 $\frac{1}{2}$	7 $\frac{3}{8}$	1.0312
$\frac{7}{8}$	.80	1.90	6 $\frac{3}{4}$	4 $\frac{3}{4}$	.3593	$\frac{3}{8}$	4.00	11.75	11 $\frac{3}{4}$	7 $\frac{3}{8}$	1.0468
$\frac{15}{16}$	.80	1.90	6 $\frac{3}{4}$	4 $\frac{3}{4}$	.375	$\frac{1}{2}$	4.00	11.75	11 $\frac{3}{4}$	7 $\frac{3}{8}$	1.0625
$\frac{1}{8}$	.90	2.10	7	4 $\frac{3}{4}$	.3906	$\frac{3}{4}$	4.25	12.20	11 $\frac{3}{4}$	7 $\frac{3}{8}$	1.0781
$\frac{1}{4}$	.90	2.10	7	4 $\frac{3}{4}$	.4062	$\frac{1}{2}$	4.25	12.20	11 $\frac{3}{4}$	7 $\frac{3}{8}$	1.0937
$\frac{3}{8}$	1.00	2.30	7 $\frac{1}{4}$	4 $\frac{3}{4}$	.4218	$\frac{3}{8}$	4.50	13.15	11 $\frac{3}{4}$	7 $\frac{3}{8}$	1.1093
$\frac{1}{2}$	1.00	2.30	7 $\frac{1}{4}$	4 $\frac{3}{4}$	.4375	$\frac{1}{2}$	4.50	13.15	11 $\frac{3}{4}$	7 $\frac{3}{8}$	1.125
$\frac{3}{4}$	1.10	2.50	7 $\frac{1}{2}$	4 $\frac{3}{4}$	.4531	$\frac{3}{4}$	4.75	13.85	11 $\frac{3}{4}$	8	1.1406
$\frac{7}{8}$	1.10	2.50	7 $\frac{1}{2}$	4 $\frac{3}{4}$	.4687	$\frac{7}{8}$	4.75	13.85	11 $\frac{3}{4}$	8	1.1562
$\frac{15}{16}$	1.20	2.75	7 $\frac{3}{4}$	5	.4843	$\frac{15}{16}$	5.00	14.55	12	8 $\frac{1}{8}$	1.1718
$\frac{1}{8}$	1.20	2.75	7 $\frac{3}{4}$	5	.5	$\frac{1}{8}$	5.00	14.55	12	8 $\frac{1}{8}$	1.1875
$\frac{1}{4}$	1.30	3.05	8	5 $\frac{1}{4}$	.5156	$\frac{1}{4}$	5.25	15.25	12 $\frac{1}{2}$	8 $\frac{1}{8}$	1.2031
$\frac{3}{8}$	1.30	3.05	8	5 $\frac{1}{4}$	.5312	$\frac{3}{8}$	5.25	15.25	12 $\frac{1}{2}$	8 $\frac{1}{8}$	1.2187
$\frac{1}{2}$	1.40	3.50	8 $\frac{1}{4}$	5 $\frac{1}{2}$	.5468	$\frac{1}{2}$	5.50	16.65	12 $\frac{1}{2}$	8 $\frac{1}{8}$	1.2343
$\frac{3}{4}$	1.40	3.50	8 $\frac{1}{4}$	5 $\frac{1}{2}$	.5625	$\frac{3}{4}$	5.50	16.65	12 $\frac{1}{2}$	8 $\frac{1}{8}$	1.25
$\frac{7}{8}$	1.50	4.00	8 $\frac{3}{4}$	5 $\frac{3}{4}$	.5781	$\frac{7}{8}$	5.75	20.00	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.2812
$\frac{15}{16}$	1.50	4.00	8 $\frac{3}{4}$	5 $\frac{3}{4}$	.5937	$\frac{15}{16}$	6.00	20.75	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.3125
$\frac{1}{8}$	1.60	4.25	8 $\frac{3}{4}$	5 $\frac{3}{4}$	.6093	$\frac{1}{8}$	6.25	21.50	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.3437
$\frac{1}{4}$	1.60	4.25	8 $\frac{3}{4}$	5 $\frac{3}{4}$	.625	$\frac{1}{4}$	6.50	22.25	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.375
$\frac{3}{8}$	1.70	4.75	9	5 $\frac{3}{4}$	.6406	$\frac{3}{8}$	7.00	23.00	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.4062
$\frac{1}{2}$	1.70	4.75	9	5 $\frac{3}{4}$	.6562	$\frac{1}{2}$	7.50	23.75	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.4375
$\frac{3}{4}$	1.80	5.25	9 $\frac{1}{4}$	6	.6718	$\frac{3}{4}$	8.00	24.50	14 $\frac{1}{2}$	9 $\frac{1}{8}$	1.4687
$\frac{7}{8}$	1.80	5.25	9 $\frac{1}{4}$	6	.6875	$\frac{7}{8}$	8.50	25.25	15	9 $\frac{1}{8}$	1.5
$\frac{15}{16}$	1.90	5.75	9 $\frac{1}{2}$	6 $\frac{1}{2}$	.7031	$\frac{15}{16}$	9.50	28.20	15 $\frac{1}{4}$	9 $\frac{1}{8}$	1.5625
$\frac{1}{8}$	1.90	5.75	9 $\frac{1}{2}$	6 $\frac{1}{2}$	.7187	$\frac{1}{8}$	10.50	31.25	15 $\frac{1}{4}$	10 $\frac{1}{8}$	1.625
$\frac{1}{4}$	2.00	6.25	9 $\frac{3}{4}$	6 $\frac{3}{4}$	.7343	$\frac{1}{4}$	11.50	33.55	15 $\frac{1}{4}$	10 $\frac{1}{8}$	1.6875
$\frac{3}{8}$	2.00	6.25	9 $\frac{3}{4}$	6 $\frac{3}{4}$	.75	$\frac{3}{8}$	12.50	37.00	16 $\frac{1}{4}$	10 $\frac{1}{8}$	1.75
$\frac{1}{2}$	2.10	6.50	9 $\frac{3}{4}$	6 $\frac{3}{4}$	.7656	$\frac{1}{2}$	14.00	39.40	16 $\frac{1}{4}$	10 $\frac{1}{8}$	1.8125
$\frac{3}{4}$	2.10	6.50	9 $\frac{3}{4}$	6 $\frac{3}{4}$	.7812	$\frac{3}{4}$	15.50	42.75	16 $\frac{1}{4}$	11	1.875
$\frac{7}{8}$	2.20	6.75	10	6 $\frac{3}{4}$	.7968	$\frac{7}{8}$	17.00	45.45	16 $\frac{1}{4}$	11 $\frac{1}{8}$	1.9375
						2	18.50	47.85	16 $\frac{1}{4}$	11 $\frac{1}{8}$	2.

MORSE STRAIGHT SHANK JOBBERS' LENGTH



No. 330—Carbon Steel

No. 1330—High Speed Steel

Diam., in.	Per dozen Carbon Steel	Per dozen High Speed Steel	Length over all, in.	Length twist, in.	Decimal equivalent	Diam., in.	Per dozen Carbon Steel	Per dozen High Speed Steel	Length over all, in.	Length twist, in.	Decimal equivalent
$\frac{1}{16}$	\$1.50	\$4.25	7 $\frac{1}{8}$	$\frac{1}{2}$	.0156	$\frac{1}{16}$	\$3.50	\$7.50	4 $\frac{1}{2}$	2 $\frac{1}{4}$	.2656
$\frac{3}{32}$	1.50	3.50	1 $\frac{1}{2}$	$\frac{3}{8}$	.0312	$\frac{3}{32}$	3.80	8.25	4 $\frac{1}{4}$	2 $\frac{1}{2}$	.2812
$\frac{1}{8}$	1.55	2.40	1 $\frac{3}{4}$	$\frac{1}{2}$	.0468	$\frac{1}{8}$	4.00	9.00	4 $\frac{3}{8}$	3 $\frac{1}{4}$	.2968
$\frac{9}{32}$	1.60	3.00	2 $\frac{1}{4}$	1 $\frac{1}{4}$	.0625	$\frac{9}{32}$	4.35	9.75	4 $\frac{1}{2}$	3 $\frac{1}{2}$	.3125
$\frac{3}{16}$	1.65	3.10	2 $\frac{3}{8}$	1 $\frac{3}{8}$	.0781	$\frac{3}{16}$	4.70	10.75	4 $\frac{3}{4}$	3 $\frac{3}{4}$	.3281
$\frac{1}{4}$	1.70	3.20	2 $\frac{1}{2}$	1 $\frac{1}{2}$	.0937	$\frac{1}{4}$	5.05	11.75	4 $\frac{3}{4}$	3 $\frac{3}{4}$	.3437
$\frac{5}{16}$	1.75	3.40	2 $\frac{3}{4}$	1 $\frac{3}{4}$	.1093	$\frac{5}{16}$	5.50	12.75	4 $\frac{3}{4}$	3 $\frac{3}{4}$	.3593
$\frac{3}{8}$	1.80	3.60	3	1 $\frac{1}{2}$	.125	$\frac{3}{8}$	6.00	13.75	5	3 $\frac{3}{4}$	.375
$\frac{7}{16}$	1.85	3.90	3 $\frac{1}{4}$	1 $\frac{3}{4}$	.1406	$\frac{7}{16}$	6.50	15.00	5 $\frac{1}{4}$	3 $\frac{3}{4}$	.3906
$\frac{1}{2}$	1.90	4.20	3 $\frac{3}{4}$	2 $\frac{1}{4}$	.1562	$\frac{1}{2}$	7.00	16.25	5 $\frac{1}{4}$	3 $\frac{3}{4}$	.4062
$\frac{9}{16}$	2.00	4.50	3 $\frac{3}{4}$	2 $\frac{1}{4}$	.1718	$\frac{9}{16}$	7.75	17.50	5 $\frac{3}{8}$	3 $\frac{3}{4}$	.4218
$\frac{5}{8}$	2.25	4.85	3 $\frac{1}{2}$	2 $\frac{1}{2}$	.1875	$\frac{5}{8}$	8.50	18.75	5 $\frac{1}{2}$	4 $\frac{1}{4}$	.4375
$\frac{11}{16}$	2.50	5.25	3 $\frac{3}{4}$	2 $\frac{3}{4}$	.2031	$\frac{11}{16}$	9.25	20.00	5 $\frac{3}{4}$	4 $\frac{1}{4}$	.4531
$\frac{3}{4}$	2.75	5.75	3 $\frac{3}{4}$	2 $\frac{3}{4}$	.2187	$\frac{3}{4}$	10.00	21.25	5 $\frac{3}{4}$	4 $\frac{1}{4}$	.4687
$\frac{7}{8}$	3.00	6.25	3 $\frac{3}{4}$	2 $\frac{3}{4}$	.2343	$\frac{7}{8}$	11.00	22.75	5 $\frac{3}{4}$	4 $\frac{1}{4}$	.4843
$\frac{15}{16}$	3.25	6.75	4	2 $\frac{3}{4}$	.25	$\frac{15}{16}$	12.00	24.25	6	4 $\frac{1}{2}$	.5

TWIST DRILLS

MORSE STRAIGHT SHANK WIRE GAGE



No. 340—Carbon Steel

Number by Gage	Per dozen—		Decimals of one inch	Length over all, in.	Length twist, in.
	Carbon Steel	High Speed Steel			
1	\$2.75	\$6.45	.2280	4	2 1/8
2	2.75	6.45	.2210	3 1/8	2 5/8
3	2.75	6.15	.2130	3 1/8	2 5/8
4	2.75	5.95	.2090	3 1/8	2 5/8
5	2.75	5.95	.2055	3 1/8	2 5/8
6	2.50	5.95	.2040	3 1/8	2 5/8
7	2.50	5.45	.2010	3 1/8	2 5/8
8	2.50	5.45	.1990	3 1/8	2 5/8
9	2.50	5.45	.1960	3 1/8	2 5/8
10	2.50	5.25	.1935	3 1/8	2 5/8
11	2.25	5.25	.1910	3 1/8	2 5/8
12	2.25	5.25	.1890	3 1/8	2 5/8
13	2.25	4.85	.1850	3 1/8	2 5/8
14	2.25	4.85	.1820	3 1/8	2 5/8
15	2.25	4.85	.1800	3 1/8	2 5/8
16	2.00	4.65	.1770	3 1/8	2 5/8
17	2.00	4.65	.1730	3 1/8	2 5/8
18	2.00	4.50	.1695	3 1/8	2 5/8
19	2.00	4.35	.1660	3 1/8	2 5/8
20	2.00	4.35	.1610	3 1/8	2 5/8
21	1.90	4.35	.1590	3 1/8	2 5/8
22	1.90	4.15	.1570	3 1/8	2
23	1.90	4.05	.1540	3 1/8	1 3/4
24	1.90	4.05	.1520	3 1/8	1 3/4
25	1.90	3.90	.1495	3	1 3/4
26	1.80	3.90	.1470	2 3/4	1 3/4
27	1.80	3.90	.1440	2 3/4	1 3/4
28	1.80	3.60	.1405	2 3/4	1 3/4
29	1.80	3.60	.1360	2 3/4	1 3/4
30	1.80	3.60	.1285	2 3/4	1 3/4
31	1.75	3.30	.1200	2 3/4	1 3/4
32	1.75	3.30	.1160	2 3/4	1 3/4
33	1.75	3.30	.1130	2 3/4	1 3/4
34	1.75	3.15	.1110	2 3/4	1 3/4
35	1.75	3.15	.1100	2 3/4	1 3/4
36	1.75	3.10	.1065	2 3/4	1 3/4
37	1.75	2.95	.1040	2 3/4	1 3/4
38	1.75	2.95	.1015	2 3/4	1 3/4
39	1.75	2.95	.0995	2 3/4	1 3/4
40	1.75	2.80	.0980	2 3/4	1 3/4

No. 1340—High Speed Steel

Number by Gage	Per dozen—		Decimals of one inch	Length over all, in.	Length twist, in.
	Carbon Steel	High Speed Steel			
41	\$1.70	\$2.80	.0960	2 3/8	1 3/8
42	1.70	2.75	.0935	2 3/8	1 3/8
43	1.70	2.60	.0890	2 3/8	1 3/8
44	1.70	2.60	.0860	2 3/8	1 3/8
45	1.70	2.60	.0820	2 3/8	1 3/8
46	1.65	2.50	.0810	2 3/8	1 3/8
47	1.65	2.50	.0785	2 3/8	1 3/8
48	1.65	2.50	.0760	2 3/8	1 3/8
49	1.65	2.50	.0730	2	1
50	1.65	2.40	.0700	1 3/8	1 1/8
51	1.60	2.40	.0670	1 3/8	1 1/8
52	1.60	2.40	.0635	1 3/8	1 1/8
53	1.60	2.40	.0595	1 3/8	1 1/8
54	1.60	2.40	.0550	1 3/8	1 1/8
55	1.60	2.40	.0520	1 3/8	1 1/8
56	1.55	2.40	.0465	1 3/8	1 1/8
57	1.55	2.40	.0430	1 3/8	1 1/8
58	1.55	2.40	.0420	1 3/8	1 1/8
59	1.55	2.40	.0410	1 3/8	1 1/8
60	1.55	2.40	.0400	1 3/8	1 1/8
61	1.50	3.50	.0390	1 1/2	1 1/8
62	1.50	3.50	.0380	1 1/2	1 1/8
63	1.50	3.50	.0370	1 1/2	1 1/8
64	1.50	3.50	.0360	1 1/2	1 1/8
65	1.50	3.50	.0350	1 1/2	1 1/8
66	1.50	3.50	.0330	1 1/2	1 1/8
67	1.50	3.50	.0320	1 1/2	1 1/8
68	1.50	3.50	.0310	1 1/2	1 1/8
69	1.50	3.50	.0292	1 1/2	1 1/8
70	1.50	3.50	.0280	1 1/2	1 1/8
71	1.50	4.25	.0260	1 1/2	1 1/8
72	1.50	4.25	.0250	1 1/2	1 1/8
73	1.50	4.25	.0240	1 1/2	1 1/8
74	1.50	4.25	.0225	1 1/2	1 1/8
75	1.50	4.25	.0210	1 1/2	1 1/8
76	1.50	4.25	.0200	1	1 1/8
77	1.50	4.25	.0180	1 1/2	1 1/8
78	1.50	4.25	.0160	1 1/2	1 1/8
79	1.50	4.25	.0145	1 1/2	1 1/8
80	1.50	4.25	.0135	1 1/2	1 1/8

MORSE STRAIGHT SHANK LETTER SIZES



No. 332—Carbon Steel

Size by Gage	Per dozen—		Decimal equivalent	Length over all, in.	Length twist, in.
	Carbon Steel	High Speed Steel			
A	\$3.00	\$6.25	.234	3 7/8	2 5/8
B	3.05	6.55	.238	3 7/8	2 5/8
C	3.10	6.55	.242	3 7/8	2 5/8
D	3.15	6.75	.246	4	2 3/4
E	3.25	6.75	.250	4	2 3/4
F	3.35	7.50	.257	4 1/8	2 3/4
G	3.45	7.50	.261	4 1/8	2 3/4
H	3.50	8.00	.266	4 1/8	2 3/4
I	3.65	8.00	.272	4 1/8	2 3/4
J	3.70	8.00	.277	4 1/8	2 3/4
K	3.80	8.25	.281	4 1/4	3
L	3.90	8.75	.290	4 1/4	3
M	4.00	9.00	.295	4 3/8	3 1/8

No. 1332—High Speed Steel

Size by Gage	Per dozen—		Decimal equivalent	Length over all, in.	Length twist, in.
	Carbon Steel	High Speed Steel			
N	\$4.25	\$9.50	.302	4 3/8	3 1/8
O	4.40	10.45	.316	4 1/2	3 1/8
P	4.60	10.75	.323	4 5/8	3 1/8
Q	4.75	11.75	.332	4 3/4	3 1/8
R	5.05	11.75	.339	4 3/4	3 1/8
S	5.15	12.75	.348	4 7/8	3 1/2
T	5.50	12.75	.358	4 7/8	3 1/2
U	6.00	13.75	.368	5	3 5/8
V	6.00	14.65	.377	5	3 5/8
W	6.50	15.00	.386	5 1/8	3 3/4
X	6.75	15.85	.397	5 3/8	3 3/4
Y	7.00	15.85	.404	5 3/4	3 3/4
Z	7.25	17.10	.413	5 3/4	3 3/4

TWIST DRILLS **MORSE STRAIGHT SHANK FOR WOOD**



No. 360—Carbon Steel

Diam., in.	Per doz.	Length over all, in.	Length twist, in.	Diam., in.	Per doz.	Length over all, in.	Length twist, in.
$\frac{1}{16}$	\$1.60	2 $\frac{1}{2}$	1 $\frac{1}{4}$	$\frac{3}{8}$	\$6.00	5	3 $\frac{3}{4}$
$\frac{1}{8}$	1.70	2 $\frac{3}{4}$	1 $\frac{1}{2}$	$\frac{7}{16}$	7.00	5 $\frac{1}{4}$	3 $\frac{1}{2}$
$\frac{1}{4}$	1.80	3	1 $\frac{3}{4}$	$\frac{1}{2}$	8.50	5 $\frac{1}{2}$	4 $\frac{1}{4}$
$\frac{3}{8}$	1.90	3 $\frac{1}{4}$	2 $\frac{1}{8}$	$\frac{9}{16}$	10.00	5 $\frac{3}{4}$	4 $\frac{3}{8}$
$\frac{1}{2}$	2.25	3 $\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{5}{8}$	12.00	6	4 $\frac{1}{2}$
$\frac{5}{8}$	2.75	3 $\frac{3}{4}$	2 $\frac{3}{4}$	$\frac{3}{4}$	12.50	6	4 $\frac{1}{2}$
$\frac{3}{4}$	3.25	4	2 $\frac{3}{4}$	$\frac{7}{8}$	13.00	6	4 $\frac{1}{2}$
$\frac{7}{8}$	3.80	4 $\frac{1}{4}$	2 $\frac{3}{4}$	$\frac{15}{16}$	13.50	6	4 $\frac{1}{2}$
$\frac{15}{16}$	4.35	4 $\frac{1}{2}$	3 $\frac{1}{8}$	1	14.00	6	4 $\frac{1}{2}$
1	5.05	4 $\frac{3}{4}$	3 $\frac{1}{2}$				

MORSE CENTER



No. 440 Carbon Steel

No. 1440 High Speed Steel

Dia., in.	Carbon steel	High speed steel	Length over all, in.	Lgth. twist, in.	Dia., in.	Carbon steel	High speed steel	Length over all, in.	Lgth. twist, in.
$\frac{1}{16}$	\$1.50	\$3.25	1 $\frac{1}{8}$	$\frac{5}{8}$	$\frac{1}{16}$	\$2.25	\$3.50	1 $\frac{1}{2}$	1
$\frac{1}{8}$	1.55	2.10	1 $\frac{1}{8}$	$\frac{5}{8}$	$\frac{1}{8}$	2.50	3.75	1 $\frac{1}{2}$	1
$\frac{1}{4}$	1.60	2.30	1 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{1}{4}$	2.75	4.05	1 $\frac{1}{2}$	1
$\frac{3}{8}$	1.65	2.30	1 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	3.00	4.40	1 $\frac{1}{2}$	1
$\frac{1}{2}$	1.70	2.35	1 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{1}{2}$	3.25	4.65	1 $\frac{1}{2}$	1
$\frac{5}{8}$	1.75	2.45	1 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{5}{8}$	3.50	5.15	1 $\frac{1}{2}$	1
$\frac{3}{4}$	1.80	2.55	1 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	3.80	5.60	1 $\frac{1}{2}$	1
$\frac{7}{8}$	1.85	2.75	1 $\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{8}$	4.00	6.05	1 $\frac{1}{2}$	1
1	1.90	3.10	1 $\frac{1}{2}$	1	1	4.35	6.55	1 $\frac{1}{2}$	1
$\frac{15}{16}$	2.00	3.30	1 $\frac{1}{2}$	1					

MORSE BIT STOCK



No. 390—Carbon Steel

For Metal or Wood

Will drill steel, iron or other metals as well as wood. Not injured by contact with screws or nails and will bore straight any kind of wood without splitting it.

Dia., in.	Per doz.	Lgth. over all, in.	Lgth. twist, in.	Lgth. shank to point, in.	Dia., in.	Per doz.	Lgth. over all, in.	Lgth. twist, in.	Lgth. shank to point, in.
$\frac{1}{16}$	\$2.50	3 $\frac{3}{8}$	1 $\frac{1}{8}$	1 $\frac{1}{8}$	$\frac{1}{16}$	\$18.00	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{1}{8}$	2.70	3 $\frac{3}{8}$	1 $\frac{1}{8}$	1 $\frac{1}{8}$	$\frac{1}{8}$	19.50	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{1}{4}$	3.00	3 $\frac{3}{8}$	1 $\frac{1}{8}$	1 $\frac{1}{8}$	$\frac{1}{4}$	21.00	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{3}{8}$	3.50	4 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	$\frac{3}{8}$	22.50	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{1}{2}$	4.00	4 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	$\frac{1}{2}$	24.00	7 $\frac{1}{2}$	5	5 $\frac{3}{4}$
$\frac{5}{8}$	4.50	4 $\frac{1}{8}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	$\frac{5}{8}$	25.50	7 $\frac{1}{2}$	5	5 $\frac{3}{4}$
$\frac{3}{4}$	5.00	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{3}{4}$	27.00	7 $\frac{1}{2}$	5	5 $\frac{3}{4}$
$\frac{7}{8}$	6.00	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{7}{8}$	28.50	7 $\frac{1}{2}$	5	5 $\frac{3}{4}$
1	7.00	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	1	30.00	7 $\frac{1}{2}$	5	5 $\frac{3}{4}$
$\frac{15}{16}$	8.00	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{15}{16}$	31.50	7 $\frac{1}{2}$	5	5 $\frac{3}{4}$
$\frac{1}{2}$	8.50	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{8}$	1	33.00	7 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{3}{4}$
$\frac{3}{4}$	9.25	6	3 $\frac{1}{8}$	3 $\frac{1}{8}$	$\frac{3}{4}$	34.50	7 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{3}{4}$
$\frac{1}{2}$	10.50	6 $\frac{1}{4}$	4	4 $\frac{1}{2}$	1	36.00	7 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{3}{4}$
$\frac{3}{4}$	11.75	6 $\frac{3}{8}$	4 $\frac{1}{8}$	4 $\frac{1}{8}$	$\frac{1}{2}$	39.00	7 $\frac{1}{2}$	4 $\frac{1}{2}$	5 $\frac{3}{4}$
$\frac{1}{2}$	13.00	6 $\frac{3}{8}$	4 $\frac{1}{8}$	5	$\frac{1}{4}$	42.00	7 $\frac{1}{2}$	4 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{1}{4}$	14.25	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$	$\frac{1}{8}$	45.00	7 $\frac{1}{2}$	4 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{1}{8}$	15.50	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$	$\frac{1}{16}$	48.00	7 $\frac{1}{2}$	4 $\frac{1}{8}$	5 $\frac{3}{4}$
$\frac{1}{16}$	16.75	7 $\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{4}$					

LEFT HAND TWIST DRILLS **MORSE**



No. 306 Taper Shank
Prices on application.



No. 318 Straight Shank Taper Length
Prices on application.



No. 334 Carbon Steel No. 1334 High Speed Steel
Straight Shank Drills, Jobbers Length

Carried in stock $\frac{1}{16}$ to $\frac{1}{2}$ in. by 64ths.
Prices same as Nos. 330 and 1330 drills.



No. 343 Carbon Steel No. 1343 High Speed Steel
Straight Shank Wire Drills

Carried in stock Nos. 1 to 65 in carbon steel and Nos. 1 to 60 in high speed steel.
Prices same as Nos. 340 and 1340 drills.

TWIST DRILLS FOR BRASS **MORSE**



No. 344 Carbon Steel, No. 1344 High Speed Steel—Fractional Sizes
No. 345 Carbon Steel, No. 1345 High Speed Steel—Wire Gage Sizes

Designed especially for drilling brass. Prices same as Nos. 330, 1330, 340 and 1340 drills.

TWIST DRILLS FOR BAKELITE **MORSE**



No. 361 Carbon Steel, No. 1361 High Speed Steel—Fractional Sizes
No. 362 Carbon Steel, No. 1362 High Speed Steel—Wire Gage Sizes

Designed especially for drilling bakelite, ebonite, ebony, asbestos or similar materials.

High speed are recommended and are carried in stock. Prices same as Nos. 1330 and 1340 drills.

Carbon steel drill prices on application.

TWIST DRILLS FOR SLATE OR MARBLE **MORSE**



No. 363 Carbon Steel, No. 1363 High Speed Steel—Fractional Sizes.
No. 364 Carbon Steel, No. 1364 High Speed Steel—Wire Gage Sizes.

Designed especially for drilling in slate or marble.
Prices on application.

JOSEPH WOODWELL COMPANY

TWIST DRILLS **MORSE TAPER SQUARE SHANK**



No. 1 Shank Fitting Ratchets

No. 400 Carbon Steel

No. 1400 High Speed Steel

Size shank, $\frac{3}{8} \times \frac{5}{8} \times 1\frac{1}{2}$ in.

No. 400 Carbon Steel					No. 1400 High Speed Steel				
Diam., in.	Each	High speed steel	Length over all, in.	Length twist, in.	Diam., in.	Each	High speed steel	Length over all, in.	Length twist, in.
$\frac{1}{8}$	Carbon steel \$0.90	.....	4 $\frac{1}{2}$	1 $\frac{1}{2}$	$\frac{1}{8}$	Carbon steel \$2.85	High speed steel \$6.00	9	6 $\frac{1}{2}$
$\frac{3}{16}$	.95	.....	4 $\frac{3}{8}$	2 $\frac{1}{8}$	$\frac{3}{16}$	3.00	6.30	9	6 $\frac{1}{2}$
$\frac{1}{4}$	.95	.....	4 $\frac{3}{8}$	2 $\frac{1}{8}$	$\frac{1}{4}$	3.10	6.70	9	6 $\frac{1}{2}$
$\frac{5}{16}$	1.00	.....	5	2 $\frac{1}{8}$	$\frac{5}{16}$	3.25	7.00	9	6 $\frac{1}{2}$
$\frac{3}{8}$	1.00	.....	5	2 $\frac{3}{8}$	$\frac{3}{8}$	3.35	7.30	9	6 $\frac{1}{2}$
$\frac{7}{16}$	1.05	.....	5	2 $\frac{3}{8}$	$\frac{7}{16}$	3.50	7.60	9	6 $\frac{1}{2}$
$\frac{1}{2}$	1.10	.....	5	2 $\frac{3}{8}$	$\frac{1}{2}$	3.65	7.90	9	6 $\frac{1}{2}$
$\frac{9}{16}$	1.15	.....	5	2 $\frac{3}{8}$	$\frac{9}{16}$	3.75	8.25	9	6 $\frac{1}{2}$
$\frac{5}{8}$	1.20	.....	6	3 $\frac{1}{4}$	$\frac{5}{8}$	3.90	8.60	9	6 $\frac{1}{2}$
$\frac{11}{16}$	1.25	.....	6 $\frac{1}{4}$	4	$\frac{11}{16}$	4.05	9.00	9	6 $\frac{1}{2}$
$\frac{3}{4}$	1.25	.....	6 $\frac{1}{4}$	4	$\frac{3}{4}$	4.20	9.40	9	6 $\frac{1}{2}$
$\frac{7}{8}$	1.30	.....	6 $\frac{1}{4}$	4	$\frac{7}{8}$	4.35	9.80	9	6 $\frac{1}{2}$
$\frac{15}{16}$	1.30	\$2.90	6 $\frac{1}{2}$	4 $\frac{1}{4}$	$\frac{15}{16}$	4.50	10.20	9	6 $\frac{1}{2}$
$1\frac{1}{16}$	1.35	2.95	6 $\frac{1}{2}$	4 $\frac{1}{4}$	$1\frac{1}{16}$	4.65	10.60	9	6 $\frac{1}{2}$
$1\frac{1}{8}$	1.35	3.00	6 $\frac{1}{2}$	4 $\frac{1}{4}$	$1\frac{1}{8}$	4.80	11.00	9	6 $\frac{1}{2}$

Note—When ordering for Packer ratchets, specify number and name of manufacturer.

TWIST DRILLS **MORSE BLACKSMITH**



Style No. 2 with Flatted Shank

No. 412 Carbon Steel

No. 1412 High Speed Steel

Shanks $\frac{1}{2}$ in. diameter, $2\frac{1}{2}$ in. long, for Silver and Deming drill presses. No. 2 style regular furnished. For round shank specify No. 1 shank.

No. 412 Carbon Steel					No. 1412 High Speed Steel				
Diam., in.	Each	High speed steel	Lgth. over all, in.	Lgth. twist, in.	Diam., in.	Each	High speed steel	Lgth. over all, in.	Lgth. twist, in.
$\frac{1}{8}$	Carbon steel \$0.45	High speed steel \$1.40	4 $\frac{1}{2}$	2 $\frac{1}{8}$	$\frac{1}{8}$	Carbon steel \$1.60	High speed steel \$5.25	6	2 $\frac{3}{4}$
$\frac{3}{16}$	.45	1.50	5 $\frac{1}{2}$	2 $\frac{1}{8}$	$\frac{3}{16}$	1.70	5.50	6	2 $\frac{3}{4}$
$\frac{1}{4}$	.50	1.60	5 $\frac{1}{2}$	2 $\frac{1}{8}$	$\frac{1}{4}$	1.80	5.75	6	2 $\frac{3}{4}$
$\frac{5}{16}$	.55	1.75	5 $\frac{1}{2}$	3	$\frac{5}{16}$	1.90	6.00	6	2 $\frac{3}{4}$
$\frac{3}{8}$	.60	1.90	6	3	$\frac{3}{8}$	2.00	6.25	6	2 $\frac{3}{4}$
$\frac{7}{16}$	.65	2.05	6	2 $\frac{3}{4}$	$\frac{7}{16}$	2.10	6.50	6	2 $\frac{3}{4}$
$\frac{1}{2}$	.70	2.20	6	2 $\frac{3}{4}$	$\frac{1}{2}$	2.20	6.75	6	2 $\frac{3}{4}$
$\frac{9}{16}$	.75	2.35	6	2 $\frac{3}{4}$	$\frac{9}{16}$	2.30	7.25	6	2 $\frac{3}{4}$
$\frac{5}{8}$	.80	2.50	6	2 $\frac{3}{4}$	$\frac{5}{8}$	2.40	7.75	6	2 $\frac{3}{4}$
$\frac{11}{16}$	.85	2.75	6	2 $\frac{3}{4}$	$\frac{11}{16}$	2.50	8.50	6	2 $\frac{3}{4}$
$\frac{3}{4}$	.90	3.00	6	2 $\frac{3}{4}$	$\frac{3}{4}$	2.60	.....	6	2 $\frac{3}{4}$
$\frac{7}{8}$	.95	3.25	6	2 $\frac{3}{4}$	$\frac{7}{8}$	2.70	.....	6	2 $\frac{3}{4}$
$1\frac{1}{16}$	1.00	3.50	6	2 $\frac{3}{4}$	$1\frac{1}{16}$	2.90	.....	6	2 $\frac{3}{4}$
$1\frac{1}{8}$	1.05	3.75	6	2 $\frac{3}{4}$	$1\frac{1}{8}$	3.10	.....	6	2 $\frac{3}{4}$
$1\frac{1}{4}$	1.10	4.00	6	2 $\frac{3}{4}$	$1\frac{1}{4}$	3.30	.....	6	2 $\frac{3}{4}$
$1\frac{1}{2}$	1.20	4.25	6	2 $\frac{3}{4}$	$1\frac{1}{2}$	3.60	.....	6	2 $\frac{3}{4}$
$1\frac{3}{4}$	1.30	4.50	6	2 $\frac{3}{4}$	$1\frac{3}{4}$	3.90	.....	6	2 $\frac{3}{4}$
$1\frac{5}{8}$	1.40	4.75	6	2 $\frac{3}{4}$	$1\frac{5}{8}$	4.20	.....	6	2 $\frac{3}{4}$
$1\frac{3}{4}$	1.50	5.00	6	2 $\frac{3}{4}$	$1\frac{3}{4}$	4.50	.....	6	2 $\frac{3}{4}$

TWIST DRILLS **MORSE BLACKSMITH**



No. 418 Carbon Steel

No. 1418 High Speed Steel

Shanks .647 inch diameter, (about $\frac{1}{2}$ inch) $2\frac{1}{4}$ in. long for Coes drill press. Flatted shank regularly furnished.

No. 418 Carbon Steel					No. 1418 High Speed Steel				
Diam., in.	Each	High speed steel	Lgth. over all, in.	Lgth. twist, in.	Diam., in.	Each	High speed steel	Lgth. over all, in.	Lgth. twist, in.
$\frac{1}{8}$	Carbon steel \$0.50	High speed steel \$1.60	4 $\frac{1}{2}$	2 $\frac{1}{8}$	$\frac{1}{8}$	Carbon steel \$1.60	High speed steel \$5.25	6	3
$\frac{3}{16}$	.55	.....	5 $\frac{1}{8}$	2 $\frac{1}{8}$	$\frac{3}{16}$	1.70	5.50	6	3
$\frac{1}{4}$	.60	.....	5 $\frac{1}{2}$	2 $\frac{1}{8}$	$\frac{1}{4}$	1.80	5.75	6	3
$\frac{5}{16}$	.65	.....	5 $\frac{1}{2}$	3	$\frac{5}{16}$	1.90	6.00	6	3
$\frac{3}{8}$	.70	.....	6	3	$\frac{3}{8}$	2.00	6.25	6	3
$\frac{7}{16}$	.75	.....	6	3	$\frac{7}{16}$	2.10	6.50	6	3
$\frac{1}{2}$	.80	.....	6	3	$\frac{1}{2}$	2.20	6.75	6	3
$\frac{9}{16}$	.85	.....	6	3	$\frac{9}{16}$	2.30	7.25	6	3
$\frac{5}{8}$	.90	.....	6	3	$\frac{5}{8}$	2.40	7.75	6	3
$\frac{11}{16}$	.95	.....	6	3	$\frac{11}{16}$	2.50	8.50	6	3
$\frac{3}{4}$	1.00	.....	6	3	$\frac{3}{4}$	2.60	9.25	6	3
$\frac{7}{8}$	1.05	.....	6	3	$\frac{7}{8}$	2.70	10.00	6	3
$1\frac{1}{16}$	1.10	\$3.50	6	3	$1\frac{1}{16}$	2.90	11.25	6	3
$1\frac{1}{8}$	1.15	3.75	6	3	$1\frac{1}{8}$	3.10	12.50	6	3
$1\frac{1}{4}$	1.20	4.00	6	3	$1\frac{1}{4}$	3.30	13.75	6	3
$1\frac{1}{2}$	1.25	4.25	6	3	$1\frac{1}{2}$	3.60	.....	6	3
$1\frac{3}{4}$	1.30	4.50	6	3	$1\frac{3}{4}$	3.90	.....	6	3
$1\frac{5}{8}$	1.40	4.75	6	3	$1\frac{5}{8}$	4.20	.....	6	3
$1\frac{3}{4}$	1.50	5.00	6	3	$1\frac{3}{4}$	4.50	.....	6	3

TWIST DRILLS
MORSE STRAIGHT SHANK



THREE GROOVE

FOUR GROOVE

No. 452—Carbon Steel

No. 1452—High Speed Steel

No. 456—Carbon Steel

No. 1456—High Speed Steel

Will not drill solid metal; for enlarging holes only.

Diam., in.	Each Carbon steel	High speed steel	Length over all, in.
1/2	\$1.50	\$4.05	7 3/4
5/8	1.60	4.35	8
3/4	1.70	4.80	8 1/4
7/8	1.80	5.35	8 3/4
1	1.90	5.60	8 3/4
1 1/8	2.00	6.10	9
1 1/4	2.10	6.60	9 1/4
1 3/8	2.25	7.10	9 1/2
1 1/2	2.40	7.60	9 3/4
1 3/4	2.55	8.00	9 3/4
1 7/8	2.70	8.35	10
2	2.85	8.85	10
2 1/8	3.00	9.30	10
2 1/4	3.15	9.75	10

Diam., in.	Each Carbon steel	High speed steel	Length over all, in.
1 1/2	\$3.30	\$11.00	10 3/4
1 3/4	3.45	12.00	11
1 7/8	3.60	12.75	11
2	3.75	13.50	11 1/8
2 1/8	4.00	14.25	11 1/4
2 1/4	4.25	14.50	11 1/2
2 3/8	4.50	15.45	11 3/4
2 1/2	4.75	16.40	11 3/8
2 5/8	5.00	17.30	12
3	5.25	18.25	12 1/8
3 1/8	5.50	20.15	12 1/2
3 1/4	5.75	23.75	14 1/8
3 3/8	6.00	24.75	14 1/4
3 1/2	6.25	25.75	14 3/8

Diam., in.	Each Carbon steel	High speed steel	Length over all, in.
1 3/8	\$ 6.50	\$26.75	14 1/2
1 3/4	7.00	28.00	14 5/8
1 7/8	7.50	29.25	14 3/4
2	8.00	30.50	14 7/8
2 1/8	8.50	31.75	15
2 1/4	9.50	34.40	15 1/4
2 3/8	10.50	37.70	15 3/8
2 1/2	11.50	40.45	15 3/4
2 5/8	12.50	44.60	16 1/4
2 3/4	14.00	47.45	16 1/2
2 7/8	15.50	51.75	16 1/2
3	17.00	55.50	16 5/8
3 1/8	18.50	58.85	16 3/4

MORSE TAPER SHANK



THREE GROOVE

FOUR GROOVE

No. 450—Carbon Steel

No. 1450—High Speed Steel

No. 454—Carbon Steel

No. 1454—High Speed Steel

Will not drill solid metal; for enlarging holes only.

Diam., in.	Each Carbon steel	High speed steel	Length, in.	Morse taper
1/2	\$1.50	\$4.30	7 3/4	1
5/8	1.60	4.60	8	1
3/4	1.70	5.10	8 1/4	1
7/8	1.80	5.35	8 3/4	2
1	1.90	5.60	8 3/4	2
1 1/8	2.00	6.10	9	2
1 1/4	2.10	6.60	9 1/4	2
1 3/8	2.25	7.10	9 1/2	2
1 1/2	2.40	7.60	9 3/4	2
1 3/4	2.55	8.00	9 3/4	2
1 7/8	2.70	9.00	10	2
2	2.85	9.50	10	2
2 1/8	3.00	10.00	10	2
2 1/4	3.15	10.50	10	2
2 3/8	3.30	11.00	10 3/4	3
2 1/2	3.45	12.00	11	3
2 5/8	3.60	12.75	11	3
2 3/4	3.75	13.50	11 1/8	3
2 7/8	4.00	14.25	11 1/4	3
3	4.25	15.75	11 1/2	3
3 1/8	4.50	16.75	11 3/4	3
3 1/4	4.75	17.75	11 3/4	3
3 3/8	5.00	18.75	12	3
3 1/2	5.25	19.75	12 1/8	3
3 3/4	5.50	21.75	12 1/2	3
3 7/8	5.75	23.75	14 1/8	4
4	6.00	24.75	14 1/4	4
4 1/8	6.25	25.75	14 3/8	4
4 1/4	6.50	26.75	14 3/4	4
4 3/8	7.00	28.00	14 3/4	4
4 1/2	7.50	29.25	14 3/4	4
4 3/4	8.00	30.50	14 3/4	4
4 7/8	8.50	31.75	15	4

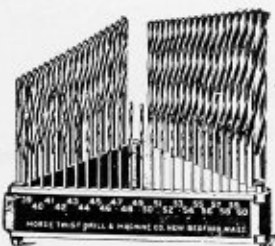
Diam., in.	Each Carbon steel	High speed steel	Length, in.	Morse taper
1 1/2	\$ 9.00	\$35.50	15	4
1 3/4	9.50	37.50	15 1/4	4
1 7/8	10.00	39.50	15 1/2	4
2	10.50	41.00	15 3/8	4
2 1/8	11.00	42.50	15 3/4	4
2 1/4	11.50	44.00	15 3/4	4
2 3/8	12.00	45.50	15 3/4	4
2 1/2	12.50	47.00	16 1/4	4
2 5/8	13.25	48.50	16 1/4	4
2 3/4	14.00	50.00	16 1/4	4
2 7/8	14.75	51.50	16 1/4	4
3	15.50	54.50	16 1/2	4
3 1/8	16.25	56.25	16 1/2	4
3 1/4	17.00	58.00	16 3/4	4
3 3/8	17.75	59.75	16 3/4	4
3 1/2	18.50	61.50	16 3/4	4
3 3/4	19.25	63.25	17 3/8	5
3 7/8	20.00	65.00	17 3/8	5
4	21.50	68.50	17 3/8	5
4 1/8	23.00	72.00	17 3/8	5
4 1/4	24.50	75.50	17 3/8	5
4 3/8	26.00	79.50	17 3/8	5
4 1/2	27.50	83.50	17 3/8	5
4 3/4	29.00	101.50	18 3/4	5
4 7/8	30.50	105.00	18 3/4	5
5	32.00	115.50	19 1/2	5
5 1/8	34.00	122.00	19 1/2	5
5 1/4	36.00	135.00	20 3/8	5
5 3/8	38.00	143.00	20 3/8	5
5 1/2	40.50	155.00	21 1/8	5
5 3/4	43.00	163.00	21 1/8	5
5 7/8	45.50	174.00	21 3/4	5
6	48.00	185.00	21 3/4	5

DRILLS IN SETS

MORSE CARBON STEEL

Folding Metal Holder Carbon Steel

For straight shank drills.
Stand is provided with holes for each size drill plainly marked so that there will be no misplacing of drills and each size is available instantly. Each set contains one each drill of No. and size listed below.



Set Nos.	Per set	Drill Nos.	Kind	Sizes of drills in each set
5B	\$16.00	330	Jobbers	$\frac{1}{16}$ to $\frac{1}{2}$ in. by 64ths.
7B	16.75	340	Wire ga.	Nos. 1 to 60 and
8B	14.35	340	Wire ga.	$\frac{1}{4}$ to $\frac{3}{8}$ by 32nds.



Hardwood Blocks Carbon and High Speed Steel

For straight shank drills.
Block is drilled deep enough to hold drill and each size plainly stamped on block.

Set Nos.	Per set	Steel	Drill Nos.	Kind	Sizes of drills in each set
5	\$15.00	Carbon	330	Jobbers	$\frac{1}{16}$ to $\frac{1}{2}$ in. by 64ths.
5A	24.75	High speed	1330	Jobbers	$\frac{1}{16}$ to $\frac{1}{2}$ in. by 64ths.
6	9.50	Carbon	330	Jobbers	$\frac{1}{16}$ to $\frac{1}{2}$ in. by 32nds.
7	15.75	Carbon	340	Wire ga.	No. 1 to 60 and
8	13.35	Carbon	340	Wire ga.	$\frac{1}{4}$ to $\frac{3}{8}$ in. by 32nds.
8A	18.85	High speed	1340	Wire ga.	No. 1 to 60.
9	8.50	Carbon	340	Wire ga.	No. 1 to 60.
15	13.50	Carbon	332	Letter	Alternate 1 to 59.
15A	22.50	High speed	1332	Letter	A to Z.
16	15.25	Carbon	340	Wire ga.	No. 1 to 70.
17	16.50	Carbon	340	Wire ga.	No. 1 to 80.

NOTE—Nos. 5A, No. 8A, No. 9A are without block.
Extra Blocks Each \$2.50



Indexed Cases Carbon Steel

Drills are contained in holes arranged in concentric circles in box, with a revolving cover with holes to match each circle. Cover is moved by small knob to register with drill desired.

Set Nos.	Per set	Drill Nos.	Kind	Sizes of drills in each set
5A	\$16.00	330	Jobbers	$\frac{1}{16}$ to $\frac{1}{2}$ in. by 64ths.
8A	14.35	340	Wire ga.	Nos. 1 to 60.
9A	9.50	340	Wire ga.	Alternate sizes Nos. 1 to 59.

DRILLS IN SETS

MORSE CARBON STEEL



In Round Wood Box

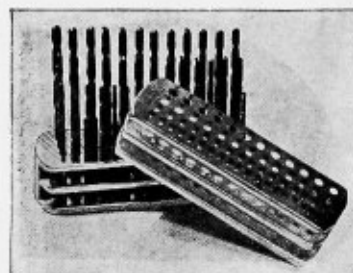
Complete with cover, nicely finished, size of each drill stamped on outside of case.

Contains one drill each No. 390 bit stock sizes, $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ in.

Each No. 14.....\$4.25

DRILL STANDS

GREAT LAKES



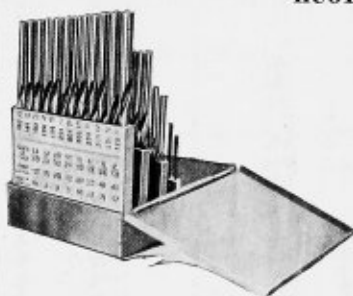
Made of steel welded construction. Holes so spaced that each drill can be easily selected and removed.

Cadmium rust proof finish.

No. 129 holds 29 drills.
No. 160 holds 60 drills.

Nos.	Each	Size of stand, inches	For size of drills	Kinds
129	\$0.50	25 $\frac{1}{2}$ x 5 $\frac{3}{4}$ x 1	$\frac{1}{16}$ to $\frac{1}{2}$ in.	Jobbers
160	.40	1 $\frac{1}{2}$ x 5 $\frac{1}{2}$ x 1 $\frac{1}{2}$	Nos. 1 to 60	Wire ga.

HUOT

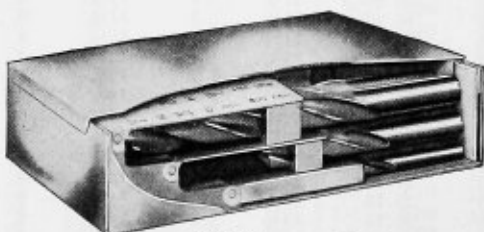


Stand in Open Position.

Drill Index

Made of steel.
Cadmium plated.
Folds up, and when closed, a flip of the wrist opens up the case. Also contains a drill index.

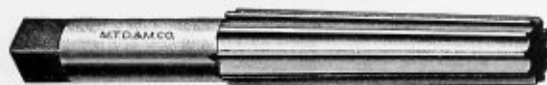
No. 29 holds 29 drills.
No. 60 holds 60 drills.



Stand in Closed Position.

Nos.	Each	Size of stand, in.	For size of drills	Kind	Wt. each, lbs.
29	\$3.60	4x7x1 $\frac{1}{4}$	$\frac{1}{16}$ to $\frac{1}{2}$ in.	Jobbers	3
60	3.00	3 $\frac{1}{4}$ x 4 $\frac{1}{2}$ x 1	No. 1 to 60	Wire ga.	1

REAMERS MORSE TAPER



No. 636—Finishing



No. 637—Roughing

Reamers larger than No. 1 can be made with oil holes at special price.

No. of taper	Each		Length over all, in.	Length of flutes, in.	Size of finish ing reamer	
	Finishing No. 636	Roughing No. 637			Large end	Small end
0	\$ 1.60	\$ 1.90	3 3/4	2 3/4	.367	.250
1	2.00	2.40	5	3	.517	.367
2	2.60	3.10	6	3 1/2	.745	.569
3	3.40	4.10	7 1/4	4 1/4	.988	.775
4	4.20	5.05	8 1/2	5 1/4	1.289	1.017
5	6.60	7.90	9 3/4	6 1/4	1.799	1.471
6	12.00	14.40	12 1/4	8 1/2	2.555	2.112

MORSE HAND



No. 601—Carbon Steel

No. 1601—High Speed Steel

64th sizes, 1/8 to 3/4 in. inclusive of carbon steel furnished at price of next larger size, all other 64th sizes at special prices.

Hand reamers with threaded ends and all sizes and dimensions not listed are special.

Reamers for brass or bronze require a special clearance and are furnished on request.

Diam., in.	Each		Lgth. over all, in.	Lgth. of flutes, in.	Diam., in.	Each		Lgth. over all, in.	Lgth. of flutes, in.
	Carbon steel	High speed steel				Carbon steel	High speed steel		
1/8	\$1.00	\$3.00	3	1 1/2	3/8	\$3.10	\$8.50	9 3/4	4 1/4
3/16	1.20	3.25	3 1/4	1 5/8	7/16	3.10	8.50	9 3/4	4 1/4
1/4	1.20	3.25	3 1/2	1 3/4	1/2	3.40	9.50	10	5
5/16	1.40	3.50	3 3/4	1 7/8	9/16	3.40	9.50	10 1/4	5 1/8
3/8	1.40	3.50	4	2	5/8	3.70	10.50	10 3/4	5 3/8
7/16	1.50	3.75	4 1/4	2 1/8	1	3.70	10.50	10 3/4	5 3/8
1/2	1.50	3.75	4 1/2	2 1/4	1 1/8	4.00	11.50	11 1/4	5 5/8
5/8	1.60	4.25	4 3/4	2 3/8	1 1/4	4.30	12.75	11 3/4	5 7/8
3/4	1.60	4.25	5	2 1/2	1 3/8	4.60	14.25	12	6
7/8	1.75	4.75	5 1/4	2 5/8	1 1/2	4.90	15.75	12 1/4	6 1/8
1	1.75	4.75	5 1/2	2 3/4	1 5/8	5.20	17.25	12 1/2	6 1/4
1 1/8	1.90	5.25	5 3/4	2 7/8	1 3/4	5.60	18.75	12 3/4	6 3/8
1 1/4	1.90	5.25	6	3	1 7/8	6.00	20.50	12 3/4	6 3/8
1 1/2	2.00	5.75	6 1/4	3 1/8	2	6.40	22.25	13	6 1/2
1 3/4	2.00	5.75	6 1/2	3 1/4	2 1/8	6.80		13	6 1/2
1 5/8	2.20	6.25	6 3/4	3 1/2	2 1/4	7.20		13	6 1/2
1 7/8	2.20	6.25	7	3 3/8	2 3/8	7.60		13 1/2	6 3/4
2	2.40	6.75	7 1/4	3 1/2	2 1/2	8.00		13 1/2	6 3/4
2 1/8	2.40	6.75	7 3/8	3 3/4	2 3/4	8.40		13 1/2	6 3/4
2 1/4	2.60	7.25	8 1/8	4 1/8	2 5/8	8.80		14	7
2 1/2	2.60	7.25	8 3/8	4 1/4	2 7/8	9.20		14	7
2 3/8	2.80	7.75	8 3/4	4 3/8	3	9.60		14	7
2 1/2	2.80	7.75	9 1/4	4 3/4					

In Sets

Set Nos.	Size, in.	Per set	Set Nos.	Size, in.	Per set
601A	1/4 to 1 by 16th	\$38.50	601E	1/4 to 1 by 32nd	\$68.75
601B	1/4 to 1 1/4 by 16th	58.25	601F	1/4 to 1 1/4 by 32nd	90.00
601C	1/4 to 1 1/2 by 16th	82.00	601G	1/4 to 1 1/2 by 32nd	119.50
601D	1/4 to 2 by 16th	154.00			

REAMERS MORSE JOBBERS TAPER SHANK



No. 617—Carbon Steel

No. 1617—High Speed Steel

Reamers with threaded ends or spiral flutes and dimensions not listed are special at special prices.

Reamers for brass or bronze require special clearance and are furnished on request.

Diam., in.	Each			Length over all, in.	Length of flutes, in.	Morse taper shank	Diam., in.	Each			Length over all, in.	Length of flutes, in.	Morse taper shank
	Carbon steel	High speed steel						Carbon steel	High speed steel				
$\frac{1}{4}$	\$1.70	\$4.00	$5\frac{3}{8}$	2	1	$\frac{3}{8}$		\$7.75	$8\frac{3}{8}$	$4\frac{1}{8}$	2		
$\frac{5}{16}$		4.25	$5\frac{3}{8}$	$2\frac{1}{4}$	1	$\frac{3}{4}$	\$3.10	7.75	$8\frac{3}{8}$	$4\frac{1}{8}$	2		
$\frac{3}{8}$	1.80	4.25	$5\frac{1}{2}$	$2\frac{1}{4}$	1	$\frac{7}{8}$	3.35	8.50	$8\frac{1}{2}$	$4\frac{1}{8}$	2		
$\frac{1}{2}$		4.75	$5\frac{5}{8}$	$2\frac{3}{8}$	1	$1\frac{1}{8}$	3.70	9.50	$9\frac{3}{8}$	$4\frac{3}{8}$	2		
$\frac{5}{8}$	1.90	4.75	$5\frac{1}{2}$	$2\frac{1}{2}$	1	$1\frac{1}{4}$	4.10	10.50	$10\frac{3}{8}$	$5\frac{1}{8}$	3		
$\frac{3}{4}$		5.25	$5\frac{1}{2}$	$2\frac{5}{8}$	1	1	4.45	11.50	$10\frac{3}{8}$	$5\frac{3}{8}$	3		
$\frac{7}{8}$	2.15	5.25	$6\frac{1}{8}$	$2\frac{3}{4}$	1	$1\frac{1}{8}$	4.80	12.50	$10\frac{3}{8}$	$5\frac{3}{8}$	3		
$1\frac{1}{8}$		5.75	$6\frac{1}{4}$	$2\frac{7}{8}$	1	$1\frac{3}{8}$	5.15	13.75	$11\frac{3}{8}$	$5\frac{1}{8}$	3		
$\frac{1}{2}$	2.30	5.75	$6\frac{3}{8}$	3	1	$1\frac{7}{8}$	5.50	15.25	$11\frac{3}{8}$	6	3		
$\frac{3}{4}$		6.25	$6\frac{3}{8}$	$3\frac{1}{8}$	1	2	5.90	16.75	$12\frac{1}{8}$	$6\frac{1}{8}$	4		
$\frac{5}{8}$	2.40	6.25	$6\frac{3}{8}$	$3\frac{1}{4}$	1	$1\frac{1}{8}$	6.25	18.25	$12\frac{1}{8}$	$6\frac{1}{8}$	4		
$\frac{3}{4}$		6.75	$6\frac{3}{8}$	$3\frac{3}{8}$	1	$1\frac{3}{8}$	6.70	19.75	$12\frac{1}{8}$	$6\frac{3}{8}$	4		
$\frac{5}{8}$	2.65	6.75	$7\frac{1}{8}$	$3\frac{1}{2}$	2	$1\frac{5}{8}$	7.20	21.50	13	$6\frac{3}{8}$	4		
$\frac{3}{4}$		7.25	$7\frac{3}{8}$	$3\frac{1}{2}$	2	$1\frac{1}{2}$	7.70	23.25	$13\frac{3}{8}$	$6\frac{1}{2}$	4		
$1\frac{1}{8}$	2.90	7.25	8	$3\frac{3}{8}$	2								

MORSE STRAIGHT SHANK FLUTED CHUCKING



No. 655—Carbon Steel

No. 1655—High Speed Steel

Reamers for brass or bronze require special clearance and are so furnished on request; sizes and dimensions not listed are special and subject to special prices.

Diam., in.	Each		Lgth. over all, in.	Lgth. of flutes, in.	Diam., in.	Each		Lgth. over all, in.	Lgth. of flutes, in.
	Carbon steel	High speed steel				Carbon steel	High speed steel		
1/8	\$0.90	\$2.00	3 1/2	7/8	3/8	\$2.55	\$6.75	9	2 1/4
3/16	1.00	2.50	4	1	7/16	2.55	6.75	9 1/2	2 1/2
1/4	1.00	2.50	4 1/2	1 1/8	1/2	2.80	7.25	9 1/2	2 1/2
5/16	1.20	3.00	5	1 1/4	5/8	2.80	7.25	9 1/2	2 1/2
3/8	1.20	3.00	6	1 1/2	3/4	3.00	8.00	9 1/2	2 1/2
7/16	1.30	3.25	6	1 1/2	7/8	3.00	8.00	10	2 5/8
1/2	1.30	3.25	6	1 1/2	1	3.25	9.00	10	2 5/8
5/8	1.45	3.75	6	1 1/2	1 1/8	3.25	9.00	10	2 5/8
3/4	1.45	3.75	7	1 3/4	1 1/4	3.45	10.00	10	2 5/8
7/8	1.60	4.25	7	1 3/4	1 1/2	3.45	10.00	10 1/2	2 3/4
1	1.60	4.25	7	1 3/4	1 3/8	3.70	11.25	10 1/2	2 3/4
1 1/8	1.80	4.75	7	1 3/4	1 1/4	3.90	12.50	11	2 3/4
1 1/4	1.80	4.75	8	2	1 1/2	4.15	13.75	11	2 3/4
1 1/2	2.00	5.25	8	2	1 3/4	4.35	15.25	11 1/2	3
1 3/4	2.00	5.25	8	2	1 5/8	4.60	17.00	11 1/2	3
1 5/8	2.25	5.75	8	2	1 7/8	4.80	18.75	12	3 1/4
1 7/8	2.25	5.75	9	2 1/4	2	5.05	20.50	12	3 1/4
2	2.40	6.25	9	2 1/4	2 1/8	5.25	22.25	12 1/2	3 1/2
2 1/8	2.40	6.25	9	2 1/4					

REAMERS

MORSE TAPER SHANK FLUTED TAPER



No. 656—Carbon Steel

No. 1656—High Speed Steel

Reamers for brass and bronze require special clearance and are so furnished on request.

Sizes and dimensions not listed are special and subject to special prices.

Each					Each				
Diam., in.	Carbon steel	High speed steel	Length over all, in.	Length of flutes, in.	Morse taper shank	Diam., in.	Carbon steel	High speed steel	Length over all, in.
1/4	\$1.45	\$3.50	6	1 1/2	1	3/8	\$3.35	\$8.00	9 1/2
3/8	1.55	3.75	6	1 1/2	1	1/2	3.35	8.00	9 1/2
1/2	1.55	3.75	6	1 1/2	1	3/4	3.60	9.00	9 1/2
5/8	1.75	4.25	6	1 1/2	1	7/8	3.60	9.00	10
3/4	1.75	4.25	7	1 3/4	1	1	3.90	10.00	10
7/8	1.90	4.75	7	1 3/4	1	1 1/8	3.90	10.00	10
1	1.90	4.75	7	1 3/4	1	1 1/4	4.15	11.00	10
1 1/8	2.15	5.25	7	1 3/4	1	1 1/2	4.15	11.00	10 1/2
1 1/4	2.15	5.25	8	2	1	1 3/4	4.45	12.25	10 1/2
1 1/2	2.40	5.75	8	2	1	1 3/8	4.70	13.50	11
1 3/4	2.40	5.75	8	2	1	1 3/4	5.00	14.75	11
1 7/8	2.70	6.25	8	2	1	1 3/2	5.20	16.25	11 1/2
2	2.70	6.25	9	2 1/4	2	1 3/4	5.50	18.00	11 1/2
2 1/8	2.90	6.75	9	2 1/4	2	1 3/8	5.75	19.75	12
2 1/4	2.90	6.75	9	2 1/4	2	1 3/4	6.05	21.50	12
2 1/2	3.05	7.25	9	2 1/4	2	1 3/2	6.30	23.25	12 1/2
2 3/4	3.05	7.25	9 1/2	2 1/2	2				

MORSE STRAIGHT SHANK ROSE CHUCKING



No. 662—Carbon Steel

No. 1662—High Speed Steel

These reamers have no radial clearance, but are ground with a longitudinal clearance. Keep cutting points sharp.

Sizes and dimensions not listed are special and subject to special prices.

Each					Each				
Diam., in.	Carbon steel	High speed steel	Lgth. over all, in.	Lgth. of flutes, in.	Diam., in.	Carbon steel	High speed steel	Lgth. over all, in.	Lgth. of flutes, in.
1/8	\$0.90	\$2.00	3 1/2	3/8	1/2	\$2.00	\$5.25	8	2
3/16	1.00	2.50	4	1	5/8	2.25	5.75	9	2 1/4
1/4	1.00	2.50	4 1/2	1 1/8	3/4	2.40	6.25	9	2 1/4
5/16	1.20	3.00	5	1 1/4	7/8	2.55	6.75	9 1/2	2 1/2
3/8	1.20	3.00	6	1 1/2	1	2.80	7.25	9 1/2	2 1/2
7/16	1.30	3.25	6	1 1/2	1 1/8	3.00	8.00	10	2 3/4
1/2	1.30	3.25	6	1 1/2	1 1/4	3.25	9.00	10	2 3/4
9/16	1.45	3.75	6	1 1/2	1 1/2	3.45	10.00	10 1/2	2 3/4
5/8	1.45	3.75	7	1 3/4	1 3/8	3.90	12.50	11	2 3/4
3/4	1.60	4.25	7	1 3/4	1 3/4	4.35	15.25	11 1/2	3
7/8	1.60	4.25	7	1 3/4	1 3/2	4.80	18.75	12	3 1/4
1	1.80	4.75	7	1 3/4	1 3/4	5.25	22.25	12 1/2	3 1/2
1 1/8	1.80	4.75	8	2					

REAMERS

MORSE TAPER SHANK ROSE CHUCKING



No. 663—Carbon Steel

No. 1663—High Speed Steel

These reamers have no radial clearance but are ground with a longitudinal clearance. Keep cutting points sharp.

Sizes and dimensions not listed are special and subject to special prices.

Each					Each				
Diam., in.	Carbon steel	High speed steel	Length over all, in.	Length of flutes, in.	Morse taper shank	Diam., in.	Carbon steel	High speed steel	Length over all, in.
1/4	\$1.45	\$3.50	6	1 1/2	1	3/8	\$3.35	\$8.00	9 1/2
3/8	1.55	3.75	6	1 1/2	1	1/2	3.60	9.00	10
1/2	1.55	3.75	6	1 1/2	1	3/4	3.90	10.00	10
5/8	1.75	4.25	6	1 1/2	1	1	4.15	11.00	10 1/2
3/4	1.75	4.25	7	1 3/4	1	1 1/8	....	12.25	10 1/2
7/8	1.90	4.75	7	1 3/4	1	1 1/4	4.70	13.50	11
1	1.90	4.75	7	1 3/4	1	1 1/2	....	14.75	11
1 1/8	2.15	5.25	7	1 3/4	1	1 3/4	5.20	16.25	11 1/2
1 1/4	2.15	5.25	8	2	1	1 3/8	....	18.00	11 1/2
1 1/2	2.40	5.75	8	2	1	1 3/4	5.75	19.75	12
1 3/4	2.70	6.25	9	2 1/4	2	1 3/2	....	21.50	12
1 3/8	2.90	6.75	9	2 1/4	2	1 3/4	6.30	23.25	12 1/2
1 3/2	3.05	7.25	9 1/2	2 1/2	2				

ARBORS

MORSE STRAIGHT SHANK



For shell reamer No. 625.

Shanks are ground standard to sizes listed.

No. 505

Size Nos.	Each	Fitting sizes, in.	Lgth. over all, in.	Lgth. of shank, in.	Diam. of shank, in.
4	\$2.70	3/8 to 1/2	9	6 1/2	1/2
5	3.00	1/2 to 1 1/2	9 1/2	6 1/2	5/8
6	3.30	1 1/8 to 1 3/4	10	6 1/2	3/4
7	3.60	1 3/8 to 1 3/2	11	7 1/2	7/8
8	4.00	1 1/2 to 2	12	7 1/2	1 1/8
9	4.50	2 1/8 to 2 1/2	13	8 1/2	1 3/8
10	5.25	2 1/4 to 3	14	8 1/2	1 5/8

ARBORS MORSE TAPER SHANK



For shell reamers No. 625 and rose shell reamer No. 626.
No. 506

Size Nos.	Each	Fitting sizes, in.	Lgth. Morse over taper all, shank in.	No.	Size Nos.	Each	Fitting sizes, in.	Lgth. Morse over taper all, shank in.	No.
4	\$3.25	$\frac{3}{16}$ to $\frac{1}{8}$	9	2	8	\$4.80	$1\frac{1}{16}$ to 2	12	4
5	3.60	$\frac{1}{8}$ to $1\frac{1}{2}$	9½	2	9	5.40	$2\frac{1}{8}$ to $2\frac{1}{2}$	13	4
6	3.95	$1\frac{1}{8}$ to $1\frac{1}{2}$	10	3	10	6.30	$2\frac{1}{8}$ to 3	14	5
7	4.30	$1\frac{1}{4}$ to $1\frac{1}{2}$	11	3					

REAMERS MORSE FLUTED SHELL



No. 625—Carbon Steel

No. 1625—High Speed Steel

Recommended for finishing.

Diameters of holes given are at large end.

Reamers for brass and bronze require a special clearance and are so furnished on request.

All sizes and dimensions not listed are special and subject to special prices.

Arbors No. 505 and No. 506 fit this reamer.

Diam., in.	Each	Carbon steel	High speed steel	Length over all, in.	Size hole, in.
$\frac{3}{16}$	\$ 2.10	\$ 3.85		$2\frac{1}{4}$	$\frac{3}{8}$
$\frac{1}{8}$	2.20	4.00		$2\frac{1}{2}$	$\frac{1}{2}$
$\frac{7}{16}$	2.30	4.25		$2\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{2}$	2.40	4.50		$2\frac{1}{2}$	$\frac{1}{2}$
1	2.50	4.75		$2\frac{1}{2}$	$\frac{1}{2}$
$1\frac{1}{8}$	2.70	5.00		$2\frac{3}{4}$	$\frac{5}{8}$
$1\frac{1}{4}$	2.90	5.25		$2\frac{3}{4}$	$\frac{5}{8}$
$1\frac{1}{2}$	3.10	5.50		$2\frac{3}{4}$	$\frac{5}{8}$
$1\frac{3}{4}$	3.30	5.75		$2\frac{3}{4}$	$\frac{5}{8}$
$1\frac{7}{8}$	3.55	6.00		3	$\frac{3}{4}$
$1\frac{5}{8}$	3.80	6.50		3	$\frac{3}{4}$
$1\frac{1}{2}$	4.05	7.00		3	$\frac{3}{4}$
$1\frac{1}{2}$	4.30	7.50		3	$\frac{3}{4}$
$1\frac{1}{8}$	4.55	8.25		3	$\frac{3}{4}$
$1\frac{1}{8}$	4.80	9.00		3	$\frac{3}{4}$
$1\frac{1}{4}$	5.10	9.75		$3\frac{1}{4}$	1
$1\frac{1}{4}$	5.40	10.50		$3\frac{1}{2}$	1
$1\frac{1}{2}$	5.70	11.25		$3\frac{1}{2}$	1
$1\frac{1}{2}$	6.00	12.00		$3\frac{1}{2}$	1
$1\frac{1}{2}$	6.30	12.75		$3\frac{1}{2}$	1
2	6.60	13.50		$3\frac{1}{2}$	1
$2\frac{1}{8}$	6.95	14.25		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{4}$	7.30	15.00		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{8}$	7.65	15.75		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{4}$	8.00	16.50		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{8}$	8.35	17.25		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{8}$	8.70	18.00		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{8}$	9.05	18.75		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{2}$	9.40	19.50		$3\frac{3}{4}$	$1\frac{1}{4}$
$2\frac{1}{8}$	9.80	20.50		4	$1\frac{1}{2}$
$2\frac{1}{8}$	10.20	21.75		4	$1\frac{1}{2}$
$2\frac{1}{8}$	10.60	23.00		4	$1\frac{1}{2}$
$2\frac{3}{4}$	11.00	24.25		4	$1\frac{1}{2}$
$2\frac{3}{4}$	11.40	25.50		4	$1\frac{1}{2}$
$2\frac{3}{4}$	11.80	27.00		4	$1\frac{1}{2}$
$2\frac{3}{4}$	12.20	28.50		4	$1\frac{1}{2}$
3	12.60	30.00		4	$1\frac{1}{2}$

REAMERS MORSE EXPANSION STRAIGHT FLUTED



Limits of expansion $\frac{1}{4}$ to $\frac{1}{2}$ (.005 in.) $\frac{1}{2}$ to $\frac{3}{4}$ (.008 in.) 1 to $1\frac{1}{2}$ (.010 in.) $1\frac{1}{2}$ to 2 (.012 in.).

Guides of these reamers are ground .005 in. under size. Reamers for brass and bronze require special clearance and are so furnished on request.

No. 715

Diam., in.	Each	Length overall, in.	Length of flutes, in.	Diam., in.	Each	Length overall, in.	Length of flutes, in.
$\frac{1}{4}$	\$3.00	4	$1\frac{1}{2}$	$1\frac{1}{2}$	\$7.25	10	$4\frac{1}{2}$
$\frac{3}{8}$	3.10	4	$1\frac{1}{2}$	$1\frac{1}{4}$	7.25	10	$4\frac{1}{2}$
$\frac{1}{2}$	3.10	4	$1\frac{1}{2}$	$1\frac{3}{8}$	7.75	10	$4\frac{1}{2}$
$\frac{5}{8}$	3.20	4	$1\frac{1}{2}$	$1\frac{1}{2}$	7.75	$10\frac{1}{2}$	$4\frac{1}{2}$
$\frac{3}{4}$	3.20	5	2	$1\frac{3}{4}$	8.30	$10\frac{1}{2}$	$4\frac{1}{2}$
$\frac{7}{8}$	3.30	5	2	$1\frac{1}{2}$	8.30	$10\frac{1}{2}$	$4\frac{1}{2}$
1	3.30	5	2	$1\frac{3}{4}$	8.90	$10\frac{1}{2}$	$4\frac{1}{2}$
$1\frac{1}{8}$	3.40	5	2	$1\frac{1}{4}$	8.90	11	5
$1\frac{1}{4}$	3.40	6	$2\frac{1}{2}$	$1\frac{3}{8}$	9.50	11	5
$1\frac{1}{2}$	3.65	6	$2\frac{1}{2}$	$1\frac{1}{2}$	9.50	11	5
$1\frac{3}{8}$	3.65	6	$2\frac{1}{2}$	$1\frac{1}{4}$	10.50	11	5
$1\frac{1}{2}$	4.00	6	$2\frac{1}{2}$	$1\frac{3}{8}$	10.50	$11\frac{1}{2}$	$5\frac{1}{4}$
$1\frac{3}{4}$	4.00	7	3	$1\frac{1}{2}$	11.50	$11\frac{1}{2}$	$5\frac{1}{4}$
$1\frac{1}{2}$	4.40	7	3	$1\frac{1}{4}$	11.50	$11\frac{1}{2}$	$5\frac{1}{4}$
$1\frac{1}{4}$	4.40	7	3	$1\frac{1}{2}$	12.50	$11\frac{1}{2}$	$5\frac{1}{4}$
$1\frac{1}{2}$	4.80	7	3	$1\frac{1}{4}$	12.50	12	$5\frac{1}{2}$
$1\frac{3}{4}$	4.80	8	$3\frac{1}{2}$	$1\frac{1}{2}$	13.00	12	$5\frac{1}{2}$
$1\frac{1}{2}$	5.25	8	$3\frac{1}{2}$	$1\frac{1}{4}$	13.50	$12\frac{1}{2}$	$5\frac{1}{2}$
$1\frac{1}{4}$	5.25	8	$3\frac{1}{2}$	$1\frac{1}{2}$	14.00	$12\frac{1}{2}$	$5\frac{1}{2}$
$1\frac{3}{8}$	5.75	8	$3\frac{1}{2}$	$1\frac{1}{4}$	14.50	13	6
$1\frac{1}{2}$	5.75	9	4	$1\frac{1}{2}$	15.00	13	6
$1\frac{3}{4}$	6.25	9	4	$1\frac{1}{4}$	15.50	$13\frac{1}{2}$	$6\frac{1}{4}$
$1\frac{1}{2}$	6.25	9	4	$1\frac{1}{2}$	16.00	$13\frac{1}{2}$	$6\frac{1}{4}$
$1\frac{1}{4}$	6.75	9	4	2	16.50	14	$6\frac{1}{2}$
1	6.75	10	$4\frac{1}{2}$				

MORSE EXPANSION SPIRAL FLUTED



Limits of expansion, sizes $\frac{3}{8}$ to $\frac{1}{2}$ (.005 in.) $\frac{1}{2}$ to $\frac{3}{4}$ (.008 in.) 1 to $1\frac{1}{2}$ (.010 in.).

Ground for brass and bronze unless otherwise specified.

No. 717

Diam., in.	Each	Lgth. of flute, in.	Lgth. of pilot, in.	Lgth. over all, in.	Diam., in.	Each	Lgth. of flute, in.	Lgth. of pilot, in.	Lgth. over all, in.
$\frac{3}{8}$	\$ 5.60	$1\frac{1}{4}$	$1\frac{1}{2}$	$6\frac{1}{4}$	$\frac{1}{2}$	\$10.00	$3\frac{3}{4}$	2	$9\frac{3}{8}$
$\frac{1}{2}$	5.80	$1\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{4}$	$\frac{3}{4}$	10.40	$3\frac{1}{2}$	2	$9\frac{3}{8}$
$\frac{1}{2}$	5.80	$1\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{4}$	$\frac{1}{2}$	10.80	$3\frac{3}{4}$	2	$9\frac{3}{8}$
$\frac{1}{2}$	6.00	$1\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{4}$	$\frac{1}{2}$	11.30	$3\frac{1}{2}$	2	$10\frac{1}{4}$
$\frac{1}{2}$	6.00	$1\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{4}$	1	11.80	$3\frac{3}{4}$	2	$10\frac{1}{4}$
$\frac{1}{2}$	6.20	$1\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{4}$	$1\frac{1}{2}$	12.20	4	2	$10\frac{1}{2}$
$\frac{1}{2}$	6.40	$2\frac{1}{4}$	$1\frac{1}{2}$	$6\frac{1}{4}$	$1\frac{1}{4}$	12.60	$4\frac{1}{4}$	2	$10\frac{1}{2}$
$\frac{1}{2}$	6.70	$2\frac{1}{4}$	$1\frac{1}{2}$	7	$1\frac{1}{2}$	13.10	$4\frac{1}{4}$	2	$10\frac{1}{2}$
.6093	6.70	$2\frac{1}{4}$	2	$7\frac{1}{4}$	$1\frac{1}{4}$	13.60	$4\frac{1}{4}$	2	$10\frac{1}{2}$
$\frac{5}{8}$	7.00	$2\frac{1}{4}$	2	$7\frac{1}{4}$	$1\frac{1}{2}$	14.10	$4\frac{1}{4}$	2	$11\frac{1}{8}$
$\frac{3}{4}$	7.30	$2\frac{1}{2}$	2	$8\frac{1}{4}$	$1\frac{1}{4}$	14.60	$4\frac{1}{4}$	2	$11\frac{1}{8}$
.668	7.70	$2\frac{1}{2}$	2	$8\frac{1}{4}$	$1\frac{1}{2}$	15.60	$4\frac{1}{4}$	2	$11\frac{1}{8}$
$\frac{1}{2}$	7.70	$2\frac{1}{2}$	2	$8\frac{1}{4}$	1.225	15.60	$4\frac{1}{4}$	2	$11\frac{1}{8}$
$\frac{1}{2}$	8.00	$2\frac{3}{4}$	2	$8\frac{1}{4}$	1.234	15.60	$4\frac{1}{4}$	2	$11\frac{1}{8}$
$\frac{1}{2}$	8.40	$2\frac{3}{4}$	2	$8\frac{1}{4}$	$1\frac{1}{4}$	15.60	$4\frac{1}{4}$	2	$11\frac{1}{8}$
$\frac{1}{2}$	8.40	$2\frac{3}{4}$	2	$8\frac{1}{4}$	$1\frac{1}{2}$	16.60	$4\frac{1}{4}$	2	$11\frac{1}{2}$
$\frac{1}{2}$	8.40	$2\frac{3}{4}$	2	$8\frac{1}{4}$	$1\frac{1}{4}$	16.60	$4\frac{1}{4}$	2	$11\frac{1}{2}$
$\frac{1}{2}$	8.80	3	2	$8\frac{1}{4}$	$1\frac{1}{2}$	18.00	$4\frac{1}{4}$	2	$11\frac{1}{2}$
$\frac{1}{2}$	9.20	$3\frac{1}{4}$	2	9	$1\frac{1}{4}$	18.00	$4\frac{1}{4}$	2	$11\frac{1}{2}$
$\frac{1}{2}$	9.60	$3\frac{1}{4}$	2	$9\frac{1}{4}$	$1\frac{1}{2}$	20.00	$4\frac{1}{4}$	2	$11\frac{1}{2}$
.850	10.00	$3\frac{3}{4}$	2	$9\frac{3}{4}$	$1\frac{1}{4}$	20.00	$4\frac{1}{4}$	2	$11\frac{1}{2}$
.855	10.00	$3\frac{3}{4}$	2	$9\frac{3}{4}$	$1\frac{1}{2}$	22.00	$4\frac{1}{4}$	2	12
.860	10.00	$3\frac{3}{4}$	2	$9\frac{3}{4}$	$1\frac{1}{4}$	22.00	$4\frac{1}{4}$	2	$12\frac{1}{4}$
.865	10.00	$3\frac{3}{4}$	2	$9\frac{3}{4}$					

REAMERS MORSE ADJUSTABLE



No. 728—Carbon Steel

No. 1728—High Speed Steel

The six tapered blades slide lengthwise in the body slots and are firmly held by the two collars in the position that gives the size required.

Ground for brass and bronze unless otherwise specified.

Size Letter	Each		per set		Extra nuts, each	Range of adjustment	Lgth. over- all, in.	Lgth. of blade, in.
	Carbon steel	High speed steel	Carbon steel	High speed steel				
4/A	\$ 3.50	\$ 4.75	\$1.50	\$ 3.90	\$0.25	$\frac{3}{8}$ to $\frac{1}{2}$	4 $\frac{3}{4}$	1 $\frac{1}{2}$
3/A	4.00	5.25	1.80	3.90	.30	$\frac{1}{2}$ to $\frac{5}{8}$	5	1 $\frac{1}{2}$
2/A	4.00	5.25	1.80	3.90	.30	$\frac{5}{8}$ to $\frac{3}{4}$	5 $\frac{1}{4}$	1 $\frac{1}{2}$
A	4.50	5.75	1.80	4.20	.30	$\frac{3}{4}$ to $\frac{7}{8}$	5 $\frac{1}{2}$	1 $\frac{1}{2}$
B	4.50	5.75	1.80	4.20	.30	$\frac{7}{8}$ to 1	5 $\frac{3}{4}$	1 $\frac{1}{2}$
C	4.75	6.00	1.80	4.20	.30	1 to $1 \frac{1}{8}$	6 $\frac{1}{2}$	2 $\frac{1}{4}$
D	4.75	6.25	1.80	4.20	.30	$1 \frac{1}{8}$ to $1 \frac{1}{4}$	6 $\frac{3}{4}$	2 $\frac{1}{4}$
E	5.00	6.50	2.10	4.50	.35	$1 \frac{1}{4}$ to $1 \frac{1}{2}$	7	2 $\frac{1}{2}$
F	5.00	6.80	2.10	4.50	.35	$1 \frac{1}{2}$ to $1 \frac{3}{4}$	7 $\frac{1}{2}$	2 $\frac{1}{2}$
G	5.50	7.10	2.40	4.80	.40	$1 \frac{3}{4}$ to 2	8	3
H	5.80	7.85	2.40	4.80	.40	2 to $2 \frac{1}{8}$	9	3 $\frac{1}{4}$
I	7.00	8.75	2.70	5.10	.45	$2 \frac{1}{8}$ to $2 \frac{1}{4}$	10	3 $\frac{3}{4}$
J	8.00	10.00	2.70	5.10	.45	$2 \frac{1}{4}$ to $2 \frac{3}{8}$	11	3 $\frac{3}{4}$
K	10.00	12.50	3.30	6.00	.50	$2 \frac{3}{8}$ to $2 \frac{1}{2}$	12	4 $\frac{1}{4}$
L	11.50	15.00	3.90	8.10	.60	$2 \frac{1}{2}$ to $2 \frac{3}{4}$	14	4 $\frac{3}{4}$
M	15.00	18.75	4.20	9.90	.70	$2 \frac{3}{4}$ to 3	16	5
N	18.00	22.50	4.80	12.30	.75	3 to $3 \frac{1}{8}$	18	5 $\frac{1}{2}$
O	22.00	27.50	6.00	15.00	1.00	$3 \frac{1}{8}$ to $3 \frac{1}{2}$	20	6 $\frac{1}{2}$

In Sets

Nos.	Per set	Kind	Size reamers in sets
728AH	\$41.50	Carbon steel	A to H
728AK	67.00	Carbon steel	A to K
1728AH	53.75	High speed steel	A to H
1728AK	83.50	High speed steel	A to K

One set in a case.

MORSE BIT STOCK TAPER



No. 692—Carbon Steel

Taper 1 inch to the foot. Diameter at large end of flutes is $\frac{1}{8}$ inch larger than nominal size.

Nominal size, in.	Each	Length, in.	Length, flutes, in.	Diam. small end, in.	Diam. large end, in.
$\frac{1}{8}$	\$0.60	3 $\frac{1}{4}$	1 $\frac{5}{8}$	.052	$\frac{1}{8}$
$\frac{3}{16}$	.60	3 $\frac{3}{8}$	1 $\frac{3}{4}$	.104	$\frac{1}{4}$
$\frac{1}{4}$	.60	4	1 $\frac{7}{8}$	.156	$\frac{3}{8}$
$\frac{5}{16}$	.60	4 $\frac{1}{4}$	2	.208	$\frac{1}{2}$
$\frac{3}{8}$	.65	4 $\frac{1}{4}$	2 $\frac{1}{4}$	.260	$\frac{5}{8}$
$\frac{7}{16}$	.70	4 $\frac{3}{8}$	2 $\frac{1}{4}$	.313	$\frac{3}{4}$
$\frac{1}{2}$	.75	4 $\frac{1}{2}$	2 $\frac{3}{4}$	.365	$\frac{7}{8}$
$\frac{9}{16}$	.80	4 $\frac{3}{4}$	2 $\frac{1}{2}$	.417	1
$\frac{5}{8}$	.95	4 $\frac{3}{4}$	2 $\frac{5}{8}$	.469	1 $\frac{1}{8}$
$\frac{11}{16}$	1.10	4 $\frac{3}{4}$	2 $\frac{3}{4}$	.521	1 $\frac{1}{4}$
$\frac{3}{4}$	1.25	5	2 $\frac{7}{8}$	.573	1 $\frac{3}{8}$
$\frac{13}{16}$	1.50	5 $\frac{1}{4}$	3	.626	1 $\frac{5}{8}$
$\frac{7}{8}$	1.75	5 $\frac{1}{4}$	3 $\frac{1}{4}$	.677	1 $\frac{7}{8}$
$\frac{15}{16}$	2.00	5 $\frac{3}{8}$	3 $\frac{1}{4}$	.730	1 $\frac{15}{16}$
1	2.25	5 $\frac{1}{2}$	3 $\frac{3}{8}$	.782	1 $\frac{1}{2}$

REAMERS MORSE TAPER PIN



No. 680—Carbon Steel

No. 1680—High Speed Steel

STRAIGHT FLUTES



SPIRAL FLUTES

No. 684—Carbon Steel

No. 1684—High Speed Steel

Taper $\frac{1}{4}$ in. per foot. The reamers having same taper will overlay in convenient measure next size smaller.

Size Nos.	Each		Each		Diam. at small end, in.	Lgth. overall, in.	Lgth. of flutes, in.
	No. 680 Carbon steel	No. 1680 High speed steel	No. 684 Carbon steel	No. 1684 High speed steel			
7/0	\$1.75	\$3.50	\$2.10	\$3.85	.0497	1 $\frac{1}{8}$	1 $\frac{1}{8}$
6/0	1.60	3.50	1.95	3.85	.0611	1 $\frac{1}{8}$	1 $\frac{1}{8}$
5/0	1.50	3.25	1.80	3.60	.0719	2 $\frac{1}{8}$	1 $\frac{1}{4}$
4/0	1.50	3.25	1.80	3.60	.0869	2 $\frac{1}{8}$	1 $\frac{1}{4}$
3/0	1.50	3.25	1.80	3.60	.1029	2 $\frac{1}{8}$	1 $\frac{1}{4}$
2/0	1.35	3.00	1.65	3.30	.1137	2 $\frac{1}{8}$	1 $\frac{1}{4}$
0	1.00	2.80	1.20	3.10	.1287	2 $\frac{1}{8}$	1 $\frac{1}{4}$
1	1.00	2.90	1.20	3.20	.1447	2 $\frac{1}{8}$	1 $\frac{1}{4}$
2	1.25	3.00	1.50	3.30	.1605	3 $\frac{1}{8}$	1 $\frac{1}{2}$
3	1.50	3.00	1.80	3.30	.1813	3 $\frac{1}{8}$	2 $\frac{1}{4}$
4	1.75	3.25	2.10	3.60	.2071	4 $\frac{1}{8}$	2 $\frac{3}{8}$
5	2.00	3.50	2.40	3.85	.2409	4 $\frac{1}{8}$	2 $\frac{3}{8}$
6	2.25	4.25	2.70	4.70	.2773	5 $\frac{1}{8}$	3 $\frac{1}{8}$
7	2.50	5.25	3.00	5.80	.3297	6 $\frac{1}{8}$	4 $\frac{1}{8}$
8	3.00	6.75	3.60	7.45	.3971	7 $\frac{1}{8}$	5 $\frac{1}{8}$
9	3.50	8.25	4.20	9.10	.4805	8 $\frac{1}{8}$	6 $\frac{1}{8}$
10	4.50	9.00	5.40	9.90	.5799	9 $\frac{1}{8}$	6 $\frac{1}{2}$

In Sets

Nos.	Per set	Kind	Size reamers in sets
680A	\$11.00	Carbon steel	00 to 5
680B	9.75	Carbon steel	0 to 5
680C	26.50	Carbon steel	0 to 10
680D	17.75	Carbon steel	6 to 10

One set in a case.

MORSE SPIRAL TAPER PIN



No. 683—Carbon Steel

No. 1683—High Speed Steel

Taper $\frac{1}{4}$ in. per foot.

Size Nos.	Each		Diam. at small end, in.	Length overall, in.	Length of flutes, in.
	No. 683 Carbon steel	No. 1683 High speed steel			
7/0	\$2.25	\$2.75	.0497	1 $\frac{1}{8}$	1 $\frac{1}{8}$
6/0	2.00	2.50	.0611	1 $\frac{1}{8}$	1 $\frac{1}{8}$
5/0	2.00	2.50	.0719	2 $\frac{1}{8}$	1 $\frac{1}{4}$
4/0	2.00	2.50	.0869	2 $\frac{1}{8}$	1 $\frac{1}{4}$
3/0	1.75	2.25	.1029	2 $\frac{1}{8}$	1 $\frac{1}{4}$
2/0	1.75	2.25	.1137	2 $\frac{1}{8}$	1 $\frac{1}{4}$
0	1.75	2.25	.1287	2 $\frac{1}{8}$	1 $\frac{1}{4}$
1	2.00	2.50	.1447	2 $\frac{1}{8}$	1 $\frac{1}{4}$
2	2.25	2.75	.1605	3 $\frac{1}{8}$	1 $\frac{1}{2}$
3	2.50	3.00	.1813	3 $\frac{1}{8}$	2 $\frac{1}{4}$
4	2.75	3.50	.2071	4 $\frac{1}{8}$	2 $\frac{3}{8}$
5	3.00	3.75	.2409	4 $\frac{1}{8}$	2 $\frac{3}{8}$
6	3.50	4.25	.2773	5 $\frac{1}{8}$	3 $\frac{1}{8}$
7	4.00	5.00	.3297	6 $\frac{1}{8}$	4 $\frac{1}{8}$
8	4.50	5.75	.3971	7 $\frac{1}{8}$	5 $\frac{1}{8}$
9	5.00	6.25	.4805	8 $\frac{1}{8}$	6 $\frac{1}{8}$
10	6.00	7.50	.5799	9 $\frac{1}{8}$	6 $\frac{1}{2}$

REAMERS

MORSE SPIRAL DIE MAKERS



No. 678 Carbon Steel

No. 1678 High Speed Steel

Taper $\frac{3}{4}$ degree included angle or .013 in. per inch.

Size	Each Carbon steel	High speed steel	Diam. small end, in.	Diam. large end, in.
AAA	\$2.50	\$3.00	.055	.070
AA	2.50	3.00	.065	.080
A	2.50	3.00	.075	.090
B	2.25	2.75	.085	.103
C	2.25	2.75	.095	.113
D	2.25	2.75	.105	.126
E	2.25	2.75	.115	.136
F	2.50	3.00	.125	.148
G	2.50	3.00	.135	.158
H	2.75	3.50	.145	.169
I	2.75	3.50	.160	.184
J	2.75	3.50	.175	.199
K	3.50	4.25	.190	.219
L	3.50	4.25	.205	.234
M	3.50	4.25	.220	.252
N	4.00	5.00	.235	.274
O	4.25	5.25	.250	.296
P	4.50	5.50	.275	.327
Q	4.75	5.75	.300	.358
R	5.00	6.00	.335	.397
S	5.25	6.25	.370	.435
T	5.50	6.75	.405	.473
U	5.75	7.00	.440	.511

MORSE TAPER SHANK STRUCTURAL

A B C



No. 697 Carbon Steel

No. 1697 High Speed Steel

For boiler makers, bridge and ship builders. Designed for hard and rough work, and are not ground closely to size. $\frac{1}{4}$ to $\frac{3}{8}$ in. have 4 flutes, $\frac{1}{2}$ to $1\frac{1}{4}$ have 5 flutes, balance of sizes have 6 flutes.

Diameter, inches at	Each Carbon steel	High speed steel	Length overall, in.	Length of flutes, in.	Length of taper B to C, in.	Morse taper shank
A B C						
$\frac{1}{4}$ $\frac{1}{4}$ $\frac{3}{8}$	\$2.30	.....	6 $\frac{3}{4}$	3 $\frac{3}{4}$	1	1
$\frac{3}{8}$ $\frac{3}{8}$ $\frac{1}{2}$	2.40	.....	6 $\frac{3}{4}$	3 $\frac{3}{4}$	1	1
$\frac{1}{2}$ $\frac{1}{2}$ $\frac{3}{4}$	2.40	.....	6 $\frac{3}{4}$	3 $\frac{3}{4}$	1	1
$\frac{3}{4}$ $\frac{3}{4}$ 1	2.50	.....	7 $\frac{1}{4}$	4	1	1
1 1 $1\frac{1}{4}$	2.50	.....	7 $\frac{1}{4}$	4	1	1
$1\frac{1}{4}$ $1\frac{1}{4}$ $1\frac{1}{2}$	2.60	\$3.40	8 $\frac{1}{4}$	4 $\frac{3}{4}$	1	2
$1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{3}{4}$	2.60	3.40	8 $\frac{1}{4}$	4 $\frac{3}{4}$	1	2
$1\frac{3}{4}$ $1\frac{3}{4}$ 2	2.75	3.65	9	5 $\frac{1}{4}$	2	2
2 2 $2\frac{1}{4}$	2.75	3.65	9	5 $\frac{1}{4}$	2	2
$2\frac{1}{4}$ $2\frac{1}{4}$ $2\frac{1}{2}$	2.90	4.00	9	5 $\frac{1}{4}$	2	2
$2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{3}{4}$	2.90	4.00	9	5 $\frac{1}{4}$	2	2
$2\frac{3}{4}$ $2\frac{3}{4}$ 3	3.05	4.70	10	6 $\frac{1}{4}$	2	2
3 3 $3\frac{1}{4}$	3.20	5.50	11 $\frac{3}{4}$	7 $\frac{1}{4}$	3	3
$3\frac{1}{4}$ $3\frac{1}{4}$ $3\frac{1}{2}$	3.35	6.00	12	7 $\frac{3}{4}$	3	3
$3\frac{1}{2}$ $3\frac{1}{2}$ $3\frac{3}{4}$	3.50	6.50	12	7 $\frac{3}{4}$	3	3
$3\frac{3}{4}$ $3\frac{3}{4}$ 4	3.75	7.00	12	7 $\frac{3}{4}$	3	3
4 4 $4\frac{1}{4}$	4.00	7.75	12	7 $\frac{3}{4}$	3	3
$4\frac{1}{4}$ $4\frac{1}{4}$ $4\frac{1}{2}$	4.25	8.50	12	7 $\frac{3}{4}$	3	3
$4\frac{1}{2}$ $4\frac{1}{2}$ $4\frac{3}{4}$	4.50	9.50	12	7 $\frac{3}{4}$	3	3
$4\frac{3}{4}$ $4\frac{3}{4}$ 5	4.75	10.50	12	7 $\frac{3}{4}$	3	3
5 5 $5\frac{1}{4}$	5.00	11.75	12	7 $\frac{3}{4}$	3	3
$5\frac{1}{4}$ $5\frac{1}{4}$ $5\frac{1}{2}$	5.50	14.00	13	7 $\frac{3}{4}$	3	4
$5\frac{1}{2}$ $5\frac{1}{2}$ $5\frac{3}{4}$	6.00	15.50	13	7 $\frac{3}{4}$	3	4
$5\frac{3}{4}$ $5\frac{3}{4}$ 6	6.50	17.50	13	7 $\frac{3}{4}$	3	4
6 6 $6\frac{1}{4}$	7.00	19.50	13	7 $\frac{3}{4}$	3	4
$6\frac{1}{4}$ $6\frac{1}{4}$ $6\frac{1}{2}$	8.00	22.00	13	7 $\frac{3}{4}$	3	4

REAMERS

MORSE TAPER SHANK STRUCTURAL



No. 1699
Straight
Flutes



No. 1700
Spiral
Flutes

Short Body, High Speed Steel

Nominal Diam., in.	Diam. at point, in.	Each High speed steel	Length overall, in.	Length of flutes, in.	Morse taper shank
$\frac{1}{4}$	$\frac{3}{8}$	\$2.55	5 $\frac{1}{8}$	2 $\frac{1}{2}$	1
$\frac{3}{8}$	$\frac{1}{2}$	2.55	5 $\frac{1}{8}$	2 $\frac{1}{2}$	1
$\frac{1}{2}$	$\frac{3}{4}$	2.70	5 $\frac{1}{8}$	2 $\frac{3}{4}$	1
$\frac{3}{4}$	1	2.80	5 $\frac{1}{8}$	2 $\frac{3}{4}$	1
1	$1\frac{1}{4}$	2.80	5 $\frac{1}{8}$	2 $\frac{3}{4}$	1
$1\frac{1}{4}$	$1\frac{3}{4}$	3.00	6 $\frac{1}{8}$	2 $\frac{3}{4}$	2
$1\frac{3}{4}$	2	3.10	6 $\frac{1}{8}$	3 $\frac{1}{2}$	2
2	$2\frac{1}{4}$	3.35	7 $\frac{1}{8}$	3 $\frac{1}{2}$	2
$2\frac{1}{4}$	$2\frac{3}{4}$	3.45	7 $\frac{1}{8}$	4	2
$2\frac{3}{4}$	3	3.65	7 $\frac{1}{8}$	4	2
3	$3\frac{1}{4}$	3.65	7 $\frac{1}{8}$	4	2
$3\frac{1}{4}$	$3\frac{3}{4}$	4.00	8 $\frac{1}{8}$	4 $\frac{1}{2}$	2
$3\frac{3}{4}$	4	4.50	8 $\frac{1}{8}$	4 $\frac{1}{2}$	3
4	$4\frac{1}{4}$	5.00	9 $\frac{1}{2}$	5	3
$4\frac{1}{4}$	$4\frac{3}{4}$	5.35	9 $\frac{1}{2}$	5	3
$4\frac{3}{4}$	5	5.70	9 $\frac{1}{2}$	5	3
5	$5\frac{1}{4}$	6.20	9 $\frac{1}{2}$	5	3
$5\frac{1}{4}$	$5\frac{3}{4}$	6.75	9 $\frac{1}{2}$	5	3
$5\frac{3}{4}$	6	7.50	9 $\frac{1}{2}$	5	3
6	$6\frac{1}{4}$	8.25	9 $\frac{1}{2}$	5	3
$6\frac{1}{4}$	$6\frac{3}{4}$	9.25	9 $\frac{1}{2}$	5	3
$6\frac{3}{4}$	7	11.00	9 $\frac{1}{2}$	5	3

MORSE TAPER SHANK STRUCTURAL

A B C



No. 1701 Spiral



No. 1702 Three Groove

High Speed Steel

For boiler makers, bridge and ship builders.

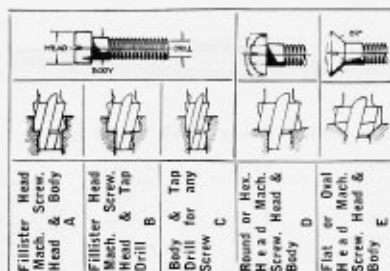
Diameter, inches at	Each High speed steel	Length overall, in.	Length of flutes, in.	Length of taper B to C, in.	Morse taper shank
A B C					
$\frac{1}{4}$ $\frac{1}{4}$ $\frac{3}{8}$	\$3.40	8 $\frac{1}{4}$	4 $\frac{3}{4}$	1	2
$\frac{3}{8}$ $\frac{3}{8}$ $\frac{1}{2}$	3.40	8 $\frac{1}{4}$	4 $\frac{3}{4}$	1	2
$\frac{1}{2}$ $\frac{1}{2}$ $\frac{3}{4}$	3.65	9	5 $\frac{1}{4}$	2	2
$\frac{3}{4}$ $\frac{3}{4}$ 1	3.65	9	5 $\frac{1}{4}$	2	2
1 1 $1\frac{1}{4}$	4.00	9	5 $\frac{1}{4}$	2	2
$1\frac{1}{4}$ $1\frac{1}{4}$ $1\frac{1}{2}$	4.00	9	5 $\frac{1}{4}$	2	2
$1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{3}{4}$	4.70	10	6 $\frac{1}{4}$	2	2
$1\frac{3}{4}$ $1\frac{3}{4}$ 2	5.50	11 $\frac{3}{4}$	7 $\frac{3}{4}$	3	3
2 2 $2\frac{1}{4}$	6.00	12	7 $\frac{3}{4}$	3	3
$2\frac{1}{4}$ $2\frac{1}{4}$ $2\frac{1}{2}$	6.50	12	7 $\frac{3}{4}$	3	3
$2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{3}{4}$	7.00	12	7 $\frac{3}{4}$	3	3
$2\frac{3}{4}$ $2\frac{3}{4}$ 3	7.75	12	7 $\frac{3}{4}$	3	3
3 3 $3\frac{1}{4}$	8.50	12	7 $\frac{3}{4}$	3	3
$3\frac{1}{4}$ $3\frac{1}{4}$ $3\frac{1}{2}$	9.50	12	7 $\frac{3}{4}$	3	3
$3\frac{1}{2}$ $3\frac{1}{2}$ $3\frac{3}{4}$	10.50	12	7 $\frac{3}{4}$	3	3
$3\frac{3}{4}$ $3\frac{3}{4}$ 4	11.75	12	7 $\frac{3}{4}$	3	3
4 4 $4\frac{1}{4}$	14.00	13	7 $\frac{3}{4}$	3	4
$4\frac{1}{4}$ $4\frac{1}{4}$ $4\frac{1}{2}$	15.50	13	7 $\frac{3}{4}$	3	4
$4\frac{1}{2}$ $4\frac{1}{2}$ $4\frac{3}{4}$	17.50	13	7 $\frac{3}{4}$	3	4
$4\frac{3}{4}$ $4\frac{3}{4}$ 5	19.50	13	7 $\frac{3}{4}$	3	4
5 5 $5\frac{1}{4}$	22.00	13	7 $\frac{3}{4}$	3	4

COUNTERBORES

MORSE, MACHINE SCREW, STRAIGHT SHANK



No. 757



Screw Sizes	Pitch	Fillister Head Screws						Round or Hex. Head		Flat or Oval Head		Tap Drills	Length overall in.
		Each	Bore for head	Pilot for body	Bore for head	Pilot for tap hole	Bore for body	Bore for head	Pilot for body	Bore for head	Pilot for body		
0	80	\$1.00	.096	.060	.096	.046	.062	.046	.125	.060	.125	.060	2
1	72	1.00	.118	.073	.118	.059	.075	.059	.156	.073	.156	.073	2
2	64	1.00	.140	.086	.140	.070	.088	.070	.187	.086	.187	.086	2
3	56	1.00	.161	.099	.161	.082	.101	.082	.203	.099	.218	.099	2
4	48	1.00	.183	.112	.183	.093	.114	.093	.234	.112	.250	.112	2
5	40	1.00	.205	.125	.205	.104	.127	.104	.250	.125	.281	.125	2 1/4
6	32	1.00	.227	.138	.227	.113	.140	.113	.281	.138	.312	.138	2 1/4
8	24	1.10	.270	.164	.270	.136	.166	.136	.328	.164	.375	.164	2 1/4

MORSE, CAP SCREW, TAPER AND STRAIGHT SHANK



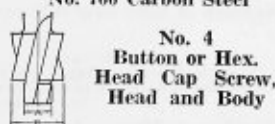
No. 765 Carbon Steel



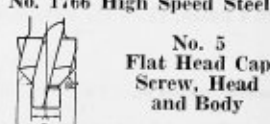
No. 765 High Speed Steel



No. 766 Carbon Steel



No. 766 High Speed Steel



Counterbores for screw sizes $\frac{1}{8}$ inch to $\frac{3}{8}$ inch inclusive, have No. 1 M.T.Sk. or St. Sk. $\frac{1}{8}$ inch x $2\frac{1}{8}$ inch.
 Counterbores for screw sizes $\frac{1}{4}$ inch to $\frac{1}{2}$ inch inclusive, have No. 2 M.T.Sk. or St. Sk. $\frac{1}{4}$ inch x $3\frac{1}{4}$ inch.
 Counterbores for screw sizes $\frac{3}{8}$ inch to 1 inch inclusive, have No. 3 M.T.Sk. or St. Sk. 1 inch x $3\frac{3}{4}$ inch.

Diam. & Pitch of Screw N. C. (U.S.S.)		Each				No. 1		No. 2		No. 3		Lgth. overall, in.
		No. 765 Carbon Steel	No. 1765 High Speed Steel	No. 766 Carbon Steel	No. 1766 High Speed Steel	Diameter		Diameter		Diameter		
						D	A	D	C	K	C	
$\frac{1}{8}$	20	\$2.00	\$2.60	\$1.80	\$2.30	.375	.250	.375	.201			5 $\frac{3}{4}$
$\frac{1}{8}$	20	1.75	2.60	1.60	2.30					.252	.201	5 $\frac{3}{4}$
$\frac{1}{8}$	18	2.10	2.75	1.90	2.50	.437	.312	.437	.257			6 $\frac{1}{4}$
$\frac{1}{8}$	18	1.85	2.75	1.70	2.50					.314	.257	6 $\frac{1}{4}$
$\frac{1}{8}$	16	2.35	3.00	2.15	3.00	.562	.375	.562	.312			6 $\frac{1}{2}$
$\frac{1}{8}$	16	2.00	2.90	1.80	3.00					.377	.312	6 $\frac{1}{2}$
$\frac{1}{8}$	14	2.55	3.50	2.30	3.25	.625	.437	.625	.368			7
$\frac{1}{8}$	14	2.10	3.50	1.90	3.25					.430	.368	7
$\frac{1}{8}$	12	2.85	3.60	2.60	3.60	.750	.500	.750	.421			7 $\frac{1}{4}$
$\frac{1}{8}$	12	2.20	3.60	2.00	3.60					.502	.421	7 $\frac{1}{4}$
$\frac{1}{8}$	12	3.10	4.00	2.80	4.00	.812	.562	.812	.474			7 $\frac{1}{2}$
$\frac{1}{8}$	12	2.35	3.70	2.15	4.00					.564	.484	7 $\frac{1}{2}$
$\frac{1}{8}$	11	3.30	4.50	3.00	4.50	.875	.625	.875	.531			7 $\frac{3}{4}$
$\frac{1}{8}$	11	2.55	3.80	2.30	4.50					.627	.531	7 $\frac{3}{4}$
$\frac{1}{8}$	10	3.85	6.00	3.50	6.00	1.000	.750	1.000	.635			9
$\frac{1}{8}$	10	2.85	5.25	2.60	6.00					.752	.656	9
$\frac{1}{8}$	9	4.40	8.10	4.40	8.10	1.125	.875	1.125	.765			9 $\frac{1}{4}$
$\frac{1}{8}$	9	3.30	5.50	3.00	6.25					.877	.765	9 $\frac{1}{4}$
$\frac{1}{8}$	8	6.10	10.35	6.10	10.35	1.312	1.000	1.312	.875			9 $\frac{1}{2}$
$\frac{1}{8}$	8	3.85	6.50	3.50	6.50					1.002	.875	9 $\frac{1}{2}$

Dia. & Pitch of Screw N. C. (U.S.S.)	Each				No. 4		No. 5		Lgth. overall, in.
	No. 765 Carbon Steel	No. 7705 High Speed Steel	No. 766 Carbon Steel	No. 7766 High-Speed Steel	Diameter		Diameter		
					E	A	F	A	
$\frac{1}{4}$ 20	\$2.00	\$2.60	\$2.00	\$2.60	.500	.250	.500	.250	5 3/4
$\frac{1}{4}$ 20	2.15	2.75	2.15	2.75	.562	.312	.562	.250	5 3/4
$\frac{1}{4}$ 18	2.40	3.15	2.40	3.15	.625	.312	.625	.250	6 1/4
$\frac{1}{4}$ 18	2.45	3.30	2.45	3.30	.687	.375	.687	.312	6 1/4
$\frac{1}{4}$ 16	2.45	3.30	2.45	3.30	.750	.437	.750	.375	6 1/2
$\frac{1}{4}$ 16	2.80	3.75	2.80	3.95	.812	.437	.812	.437	7
$\frac{1}{4}$ 14	2.80	3.95	2.80	3.95	.875	.500	.875	.437	7 1/4
$\frac{1}{4}$ 14	3.05	4.45	3.05	4.45	.937	.562	.937	.500	7 1/2
$\frac{1}{4}$ 13	3.30	4.75	3.30	4.75	1.000	.625	1.000	.562	7 1/2
$\frac{1}{4}$ 13	3.80	5.80	3.80	5.80	1.062	.687	1.062	.625	7 3/4
$\frac{1}{4}$ 12	3.80	5.80	3.80	5.80	1.000	.562	.968	.500	7 1/4
$\frac{1}{4}$ 12	4.10	6.45	4.10	6.45	1.062	.625	1.062	.562	7 1/2
$\frac{1}{4}$ 11	4.10	6.45	4.10	6.45	1.062	.625	1.062	.562	7 1/2
$\frac{1}{4}$ 11	4.70	7.70	4.70	7.70	1.125	.687	1.187	.625	7 3/4
$\frac{1}{4}$ 10	5.80	9.60	5.80	9.60	1.312	.750	1.312	.750	8 1/4
$\frac{1}{4}$ 10	6.90	11.00	6.90	11.00	1.375	.812	1.437	.812	8 1/2
$\frac{1}{4}$ 9	6.70	11.10	6.70	11.10	1.375	.875	1.437	.875	8 1/2
$\frac{1}{4}$ 8	7.90	12.60	7.90	12.60	1.500	1.000	1.500	1.000	9 1/2

COMBINED DRILLS AND COUNTERSINKS

MORSE No. 1 TAPER SHANK

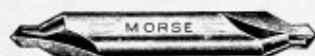


No. 497

Included angle, 60 degrees.

Size Nos.	Each	Diam. of drill, in.	Diam. of body, in.
1	\$0.75	$\frac{1}{8}$	$\frac{1}{8}$
2	.75	$\frac{3}{16}$	$\frac{3}{16}$
3	.75	$\frac{1}{4}$	$\frac{1}{4}$
4	.75	$\frac{5}{16}$	$\frac{1}{2}$
5	.75	$\frac{3}{8}$	$\frac{5}{8}$

MORSE



No. 495—Carbon Steel

No. 1495—High Speed Steel

Included angle, 60 degrees.

Dimensions

Size Nos.	Diam. of body, in.	Decimal equivalent of drill
A1	$\frac{1}{8}$	.0468
C2	$\frac{1}{4}$	.0625
D1	$\frac{3}{8}$	.078
E1	$\frac{1}{2}$	.0938
E2	$\frac{3}{4}$	.125
F1	$\frac{1}{2}$	.1563
F2	$\frac{3}{4}$	.1875

Size Nos.	Diam. drills, in.	No. 495 per doz.	No. 1495 per doz.
A1	$\frac{1}{8}$	\$2.50	\$ 8.00
C2	$\frac{1}{4}$	3.00	8.00
D1	$\frac{3}{8}$	3.25	8.00
E1	$\frac{1}{2}$	3.50	8.00
E2	$\frac{3}{4}$	3.50	8.00
F1	$\frac{1}{2}$	4.50	12.00
F2	$\frac{3}{4}$	4.50	12.00

IN SETS



Consists of 7 combined drills and countersinks one each of Nos. A1, C2, D1, E1, E2, F1 and F2, in a round wood box as illustrated.

Nos.	Steel	Per set
50	Carbon	\$2.80
50H	High speed	6.45

CENTER REAMERS

MORSE



60 and 82 degrees.
Style No. 2.

No. 750

Size cut, in.	Each	Length over all, in.	Diam. shank, in.	Length shank, in.
$\frac{1}{4}$	\$0.40	1 $\frac{1}{2}$	$\frac{1}{8}$	$\frac{3}{4}$
$\frac{3}{8}$	.45	1 $\frac{3}{4}$	$\frac{1}{4}$	$\frac{7}{8}$
$\frac{1}{2}$	.55	2	$\frac{3}{8}$	1
$\frac{5}{8}$	.70	2 $\frac{1}{4}$	$\frac{1}{2}$	1
$\frac{3}{4}$	.85	2 $\frac{3}{4}$	$\frac{5}{8}$	1 $\frac{1}{4}$

COUNTERSINKS

MAYHEW



Rose Pattern for Soft Metal or Wood

Made of crucible steel, bit brace shank.

Nos.	Per doz.	Size, in.	Length, in.	Wt. per doz., lbs.
315A	\$3.80	$\frac{1}{2}$	4	1
315B	4.00	$\frac{3}{4}$	4 $\frac{1}{2}$	1 $\frac{1}{4}$
315C	5.10	$\frac{1}{2}$	4 $\frac{1}{2}$	1 $\frac{1}{2}$

One dozen in a box.

MAYHEW



82° Taper, for Metal

Made of crucible steel, bit brace shank.

Nos.	Per doz.	Size, in.	Length, in.	Wt. per doz., lbs.
No. 325		$\frac{1}{2}$ in.	4 in.	
		$\frac{1}{2}$ in.	4 in.	
		$\frac{1}{2}$ in.	4 in.	

One dozen in a box.

STARRETT



Self-Centering, Double Lip for Wood

Made of forged steel, twisted and tempered. Bit brace shank.

Nos.	Each	Size, in.	Wt. each, ounces
195A	\$0.60	$\frac{3}{8}$	1 $\frac{1}{2}$
195B	.65	$\frac{1}{2}$	1 $\frac{1}{2}$

One-half dozen in a box.

TAPER REAMERS

MAYHEW



Straight Fluted

Made of tool steel. Bit brace shank. Reams hole $\frac{1}{8}$ to $\frac{1}{2}$ in. Length flute 4 in.

Nos.	Per dozen	Wt. per dozen
No. 387		1 $\frac{1}{2}$ lbs.

One dozen in a box.

BURRING REAMERS

GREENFIELD



Spiral Flutes

Made of finest steel for removing burrs from pipe and for countersinking holes in metal. Bit brace shank.

Nos.	Each	Pipe cap., in.	Diam. at point, in.	Diam. large end, in.
241	\$1.00	$\frac{1}{8}$ - $\frac{1}{2}$	$\frac{1}{8}$	$\frac{1}{4}$
242	1.25	$\frac{1}{4}$ - 1	$\frac{1}{8}$	1 $\frac{1}{4}$
242 $\frac{1}{2}$	1.50	$\frac{1}{4}$ - 1 $\frac{1}{4}$	$\frac{1}{4}$	1 $\frac{1}{2}$
244	3.00	$\frac{1}{4}$ - 2	$\frac{1}{4}$	2 $\frac{1}{2}$

GREENFIELD

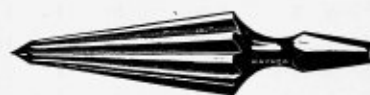


Spiral Flutes

Made of finest steel, for removing burrs from pipe and for countersinking holes in metal. $\frac{1}{2}$ inch round shank. Diameter at point $\frac{1}{4}$ inch, at large end 2 $\frac{1}{2}$ in.

Each No. 234—Pipe capacity $\frac{1}{4}$ to 2 in....\$3.00

MAYHEW



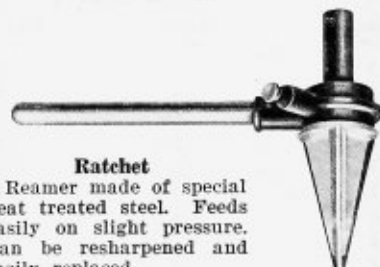
Straight Flutes

Made of hammer forged steel, bit brace shank.

Nos.	Each	Size, in.	Length of flute, in.	Wt. each, ozs.
388	\$1.10	$\frac{1}{4}$ to $\frac{7}{8}$	3	5
389	1.25	$\frac{3}{8}$ to 1 $\frac{1}{2}$	3	10

PIPE REAMERS

TOLEDO



Ratchet

Reamer made of special heat treated steel. Feeds easily on slight pressure. Can be resharpened and easily replaced.

Pipe capacity $\frac{3}{8}$ to 3 in. Each Toledo—Wt. each 8 lbs.....\$5.60

One in a box.

MILLING CUTTERS MORSE PLAIN



Cutters of less than $\frac{3}{4}$ in. face have straight teeth. Cutters of $\frac{3}{4}$ in. face and over have spiral teeth.

In ordering state diameter, face of cutter and size of hole.

No. 830 Carbon Steel

No. 1830 High Speed Steel

		Each				Each			
Dia., in.	Face, in.	Hole, in.	Carbon steel	High speed steel	Dia., in.	Face, in.	Hole, in.	Carbon steel	High speed steel
2 1/4	1 1/2	3/8	\$ 2.30	\$ 4.50	3	5/8	1 1/4	\$ 3.50	\$ 6.90
2 1/4	1	3/8	3.00	6.00	3	3/4	1 1/4	3.80	7.50
2 1/2	1 1/8	1	1.60	3.10	3	7/8	1 1/4	4.10	8.10
2 1/2	1 1/4	1	2.10	4.10	3	1	1 1/4	4.40	8.70
2 1/2	1 1/2	1	2.20	4.30	3	1 1/4	1 1/4	5.00	9.90
2 1/2	3/8	1	2.30	4.60	3	1 1/2	1 1/4	5.50	11.00
2 1/2	7/8	1	2.50	4.90	3	2	1 1/4	6.70	13.40
2 1/2	1 1/2	1	2.60	5.10	3	3	1 1/4	9.10	18.10
2 1/2	5/8	1	2.80	5.60	4	1/4	1	3.60	7.10
2 1/2	3/4	1	3.00	6.00	4	1/2	1 1/4	3.60	7.10
2 1/2	1	1	3.50	6.90	4	3/8	1	3.90	7.70
2 1/2	1 1/2	1	4.30	8.60	4	1/2	1 1/4	3.90	7.70
2 1/2	2	1	5.20	10.30	4	3/8	1	4.10	8.20
2 1/2	2 1/2	1	6.10	12.10	4	3/8	1 1/4	4.10	8.20
2 1/2	3	1	6.90	13.70	4	1/2	1 1/4	4.70	9.30
3	3/8	1	1.90	3.80	4	5/8	1 1/4	5.10	10.20
3	1/4	1	2.50	5.00	4	3/4	1 1/4	5.60	11.20
3	1/2	1	2.70	5.40	4	1	1 1/4	6.60	13.10
3	3/8	1	2.90	5.70	4	1 1/2	1 1/4	8.60	17.10
3	3/8	1 1/4	2.90	5.70	4	2	1 1/4	10.50	21.00
3	7/8	1 1/4	3.00	6.00	4	3	1 1/4	14.50	28.90
3	1 1/2	1 1/4	3.20	6.40	4	4	1 1/4	18.40	36.80

MORSE PLAIN

Heavy Duty

Cutters having straight teeth, nickel teeth or other dimensions than listed are special.



No. 1802 High Speed Steel

Diam. of cutter, in.	Width of face, in.	Diam. of hole, in.	Each
2 1/2	2	1	\$10.30
2 1/2	4	1	17.30
3	2	1 1/4	13.40
3	2 1/2	1 1/4	15.80
3	3	1 1/4	18.10
3	4	1 1/4	22.80
3	6	1 1/4	33.60
4	2	1 1/2	21.00
4	3	1 1/2	28.90
4	4	1 1/2	36.80
4	6	1 1/2	53.90
4 1/2	6	2	66.30
4 1/2	12	2	136.60

MILLING CUTTERS MORSE SIDE



Straddle Mills

No. 833 Carbon Steel

No. 1833 High Speed Steel

		Each				Each			
Dia., in.	Face, in.	Hole, in.	Carbon steel	High speed steel	Dia., in.	Face, in.	Hole, in.	Carbon steel	High speed steel
2	3/8	1/2	\$ 2.10	\$ 4.20	4	3/4	1	\$ 6.70	\$13.30
2	1/2	5/8	2.10	4.20	4	3/4	1 1/4	6.70	13.30
2	1/4	1/2	2.20	4.40	4	7/8	1	7.20	14.30
2	1/4	5/8	2.20	4.40	4	7/8	1 1/4	7.20	14.30
2	3/8	1/2	2.40	4.80	5	1/2	1	7.60	15.10
2	3/8	5/8	2.40	4.80	5	1/2	1 1/4	7.60	15.10
2 1/2	1/4	7/8	2.70	5.40	5	5/8	1	8.40	16.70
2 1/2	3/8	7/8	2.90	5.70	5	5/8	1 1/4	8.40	16.70
2 1/2	3/8	7/8	3.00	6.00	5	3/4	1	9.10	18.20
2 1/2	1/2	7/8	3.30	6.60	5	3/4	1 1/4	9.10	18.20
3	1/4	1	3.30	6.50	5	1	1 1/4	10.70	21.30
3	3/8	1	3.50	6.90	6	1/2	1	9.90	19.70
3	3/8	1	3.60	7.20	6	1/2	1 1/4	9.90	19.70
3	1/2	1	3.80	7.60	6	3/4	1 1/4	10.90	21.80
3	1/2	1	4.00	8.00	6	3/4	1	12.00	24.00
4	1/4	1	4.50	9.00	6	3/4	1 1/4	12.00	24.00
4	3/8	1	5.10	10.10	6	1	1 1/4	14.20	28.40
4	1/2	1	5.70	11.30	7	3/4	1 1/4	17.20	34.40
4	1/2	1 1/4	5.70	11.30	7	1	1 1/4	20.20	40.30
4	5/8	1	6.20	12.30	8	3/4	1 1/4	22.90	45.70
4	5/8	1 1/4	6.20	12.30	8	1	1 1/4	26.70	53.40

MORSE STAGGERED OR ALTERNATING TOOTH



This cutter is especially suited for deep slotting or keyway milling. The shearing action, alternating right and left, eliminates side thrust and the cutting action is very smooth and rapid.

No. 1809 High Speed Steel

Diam., in.	Width face, in.	Diam. hole, in.	Each	Diam., in.	Width face, in.	Diam. hole, in.	Each
2 1/2	1/4	3/8	\$ 6.80	4	3/8	1 1/4	\$15.40
2 1/2	3/8	7/8	7.10	4	3/4	1 1/4	16.60
2 1/2	3/8	7/8	7.50	4	3/8	1 1/4	17.90
2 1/2	1/2	7/8	8.30	5	1/2	1 1/4	18.90
3	1/2	1	7.80	5	3/8	1 1/4	20.90
3	3/4	1	8.10	5	3/4	1 1/4	22.80
3	3/8	1	8.60	6	3/8	1 1/4	21.80
3	3/8	1	9.00	6	1/2	1 1/4	24.60
3	1/2	1 1/4	10.00	6	5/8	1 1/4	27.30
3	5/8	1 1/4	10.80	6	3/4	1 1/4	30.00
3	3/4	1 1/4	11.50	6	7/8	1 1/4	32.80
4	1/4	1 1/4	11.30	6	1	1 1/4	35.50
4	1/2	1 1/4	12.00	8	3/8	1 1/2	42.40
4	3/8	1 1/4	12.60	8	1/2	1 1/2	47.40
4	7/8	1 1/4	13.40	8	5/8	1 1/2	52.30
4	1/2	1 1/4	14.10	8	3/4	1 1/2	57.10

CORNER ROUNDING CUTTERS MORSE



Left Hand

These Cutters have side and radial clearance, and can be sharpened by grinding without changing their form.

In ordering Single Cutters, state whether Right or Left Hand are wanted.

Cutters having dimensions other than listed are special and subject to special prices.



Right Hand

No. 868 Carbon Steel

Radius of circle, in.	Carbon steel, each
$\frac{1}{8}$	\$3.10
$\frac{1}{4}$	3.90
$\frac{3}{8}$	5.70
$\frac{1}{2}$	6.60
$\frac{3}{4}$	8.00

No. 1868 High Speed Steel

Diam. of cutter, in.	Thick. of cutter, in.	Diam. of hole, in.
2	$\frac{1}{4}$	$\frac{7}{8}$
$2\frac{1}{4}$	$\frac{3}{8}$	$\frac{7}{8}$
3	$\frac{3}{8}$	1
$3\frac{1}{4}$	$\frac{3}{8}$	1
$3\frac{1}{2}$	$\frac{1}{2}$	1

CONCAVE AND CONVEX CUTTERS MORSE

For Milling Half Circles



Convex

These cutters have formed teeth and can be sharpened without changing their outline.

Cutters having dimensions other than listed are special and subject to special prices.



Concave

Diam. of circle, in.	Each		Concave		Diam. of cutter, in.	Diam. of hole, in.
	No. 865 carbon steel	No. 1865 speed steel	No. 866 carbon steel	No. 1866 speed steel		
$\frac{1}{8}$	\$3.00	\$ 6.00	\$3.10	\$ 6.20	2	$\frac{7}{8}$
$\frac{1}{4}$	3.00	6.00	3.40	6.80	2	$\frac{7}{8}$
$\frac{3}{8}$	3.10	6.20	3.50	7.00	2	$\frac{7}{8}$
$\frac{1}{2}$	3.60	7.20	4.30	8.50	$2\frac{1}{4}$	$\frac{7}{8}$
$\frac{3}{4}$	3.80	7.50	4.30	8.50	$2\frac{1}{4}$	$\frac{7}{8}$
$\frac{1}{2}$	3.90	7.80	4.50	9.00	$2\frac{1}{4}$	$\frac{7}{8}$
$\frac{3}{4}$	4.10	8.10	4.80	9.50	$2\frac{1}{4}$	$\frac{7}{8}$
$\frac{1}{2}$	5.20	10.40	6.10	12.10	$2\frac{3}{4}$	1
$\frac{3}{4}$	6.00	12.00	7.40	14.70	3	1
$\frac{1}{2}$	7.00	13.90	8.50	16.90	$3\frac{1}{4}$	1
1	7.30	14.60	9.20	18.40	$3\frac{1}{4}$	1

SINGLE ANGLE MILLING CUTTERS



MORSE

Right and Left Hand.
45 and 60 Degree Angle in Stock.

Angular Cutters are for cutting the teeth of Cutters and Mills and the side teeth of Heading or Straddle Mills, but are not adapted for Spiral Milling.

Specify right or left hand when ordering.
Dimensions other than listed are special.

No. 850 Carbon Steel

Diam. in.	Carbon steel
$2\frac{1}{2}$	\$3.30
$2\frac{3}{4}$	3.60
3	4.00

No. 1850 High Speed Steel

Diam. of hole, in.	Thickness, in.
$\frac{7}{8}$	$\frac{1}{2}$
1	$\frac{1}{2}$
$1\frac{1}{4}$	$\frac{1}{2}$

SINGLE ANGLE MILLING CUTTERS MORSE, WITH THREADED HOLE



Right and Left Hand, 60 Degree Angle.

In ordering these cutters, in addition to specifying right or left hand, advise position on arbor; that is, whether small or large diameter of cutter is to be placed next to shoulder on arbor.

Cutters having dimensions other than listed are special and subject to special prices.

No. 851 Carbon Steel

Diam., in.	Carbon steel
$1\frac{1}{4}$	\$2.70
$1\frac{3}{8}$	3.10

No. 1851 High Speed Steel

Diam. of hole, in.	Thickness, in.
$\frac{3}{8}$	$\frac{1}{8}$
$\frac{1}{2}$	$\frac{1}{8}$
$\frac{3}{4}$	$\frac{1}{8}$

DOUBLE ANGLE MILLING CUTTERS

MORSE

Carried in stock with included angle of 45, 60 and 90 degrees.

No. 854 Carbon Steel

Diam., in.	Carbon steel
$2\frac{3}{4}$	\$3.60

No. 1854 High Speed Steel

Diam. of hole, in.	Thickness, in.
1	$\frac{1}{2}$

KEY SEAT CUTTERS

MORSE

For Woodruff Keys



Furnished regularly Right Hand only. Left Hand and Special Dimension Cutters are subject to special prices.

No. 917 Carbon Steel

Cutter No.	Carbon steel
1	\$1.40
2	1.40
3	1.40
4	1.40
5	1.40
6	1.40
7	1.60
8	1.60
9	1.60
10	1.70
11	1.70
12	1.70
A	1.70
13	1.90
14	1.90
15	1.90
B	2.00
16	2.10
17	2.10
18	2.10
C	2.20
19	2.30
20	2.30
21	2.30
D	2.50
E	2.50
22	2.50
23	2.70
F	2.70
24	2.80
25	3.00
G	3.00

No. 1917 High Speed Steel

Diam. of cutter, in.	Thick-ness, in.	Length, in.	Diam. of shank, in.
$\frac{1}{2}$	$\frac{1}{8}$	$2\frac{1}{2}$	$\frac{1}{2}$
$\frac{3}{4}$	$\frac{1}{8}$	$2\frac{1}{2}$	$\frac{1}{2}$
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$\frac{3}{4}$	$\frac{1}{8}$	$2\frac{1}{2}$	$\frac{1}{2}$

END MILLS

MORSE TAPER SHANK



Spiral Cut

No. 907 Carbon Steel

No. 1907 High Speed Steel

Regularly furnished right hand only with right hand spiral flutes.

Left hand spiral cut end mills or heavy duty spiral cut end mills with Morse taper shanks are special.

Sizes and dimensions not listed are special.

Diam., in.	Each Carbon Steel	Each High speed Steel	Number of shank	Length overall, in.	Length of cut, in.
1/4	\$1.60	\$3.20	1	3 1/2	5/8
5/16	1.70	3.30	1	3 3/8	1 1/8
3/8	1.70	3.30	1	3 5/8	3/4
7/16	1.70	3.30	1	3 3/4	7/8
1/2	1.70	3.40	1	3 1/2	1 1/8
5/8	2.40	4.80	2	4 1/2	1 3/8
3/4	2.50	4.90	2	4 5/8	1 1/2
7/8	2.50	4.90	2	4 3/4	1 3/4
1	3.50	7.00	3	5 1/2	1 3/4
1 1/8	2.90	5.70	2	4 1/2	1 1/2
1 1/4	3.50	7.00	3	5 3/4	1 1/2
1 1/2	3.30	6.60	2	5 1/2	1 1/2
1 3/4	3.70	7.30	3	5 1/2	1 1/2
2	4.20	8.40	3	6 1/2	1 3/4
2 1/4	4.80	9.60	3	6 1/2	2

MORSE WITH BROWN AND SHARPE TAPER SHANK



Spiral Cut

No. 908 Carbon Steel

No. 1908 High Speed Steel

Right hand mills have right hand spiral.

Left hand mills have left hand spiral.

Mills with No. 5 shank furnished regularly without tang.

Mills with No. 9 furnished with tang end or with tapped hole for drawback spindle.

Size and dimensions not listed are special.

Diam., in.	Each Carbon Steel	Each High speed Steel	Number of shank	Length overall, in.	Length of cut, in.
1/4	\$1.70	\$3.30	5	2 1/2	5/8
5/16	1.70	3.30	5	2 3/8	1 1/8
3/8	1.70	3.30	5	2 1/2	3/4
7/16	1.80	3.50	5	3 1/8	7/8
1/2	1.80	3.50	5	3 1/2	1 1/8
5/8	2.60	5.10	7	4 1/8	1 3/8
3/4	2.60	5.10	7	5	1
7/8	2.70	5.30	7	5 1/8	1 1/8
1	2.70	5.30	7	5 1/4	1 1/4
1 1/8	3.10	6.10	7	5 1/2	1 1/2
1 1/4	3.50	7.00	7	5 3/4	1 3/4
1 1/2	4.70	9.30	9	7	1 3/4
1 3/4	5.30	10.50	9	7 1/4	2
2	6.70	13.30	9	7 1/2	2 1/4
2 1/4	8.30	16.60	9	7 3/4	2 1/2
2 1/2	10.50	21.00	9	8	2 3/4

END MILLS

MORSE WITH BROWN AND SHARPE TAPER SHANK



Spiral Cut—Heavy Duty

No. 1805 High Speed Steel

Right hand mills have right hand spiral.

Left hand mills have left hand spiral.

Mills with No. 5 shank regularly furnished without tang.

Mills with No. 9 shank furnished with tang end or with tapped hole for drawback spindle.

Sizes and dimensions not listed are special.

Diam., in.	Each	Number of shank	Length overall, in.	Length of cut, in.
1/4	\$3.30	5	2 1/2	5/8
5/16	3.30	5	2 3/8	1 1/8
3/8	3.30	5	2 1/2	3/4
7/16	3.50	5	3 1/8	7/8
1/2	3.50	5	3 1/2	1 1/8
5/8	5.10	7	4 1/8	1 3/8
3/4	5.10	7	5	1
7/8	5.30	7	5 1/8	1 1/8
1	5.30	7	5 1/4	1 1/4
1 1/8	6.10	7	5 1/2	1 1/2
1 1/4	7.00	7	5 3/4	1 3/4
1 1/2	9.30	9	7	1 3/4
1 3/4	10.50	9	7 1/4	2
2	13.30	9	7 1/2	2 1/4
2 1/4	16.60	9	7 3/4	2 1/2
2 1/2	21.00	9	8	2 3/4

MORSE STRAIGHT SHANK



Sizes Under 1/4 inch Have Straight Flutes



Sizes 1/4 inch and Over Have Spiral Flutes

No. 891 Carbon Steel

No. 1891 High Speed Steel

Right hand mills have a right hand spiral.

Left hand mills have a left hand spiral.

Sizes and dimensions not listed are special.

Diam., in.	Each Carbon steel	Each High speed steel	Length of cut, in.	Length overall, in.
1/8	\$0.70	\$1.40	1/8	1 1/4
5/16	.80	1.50	1/8	1 1/4
3/8	.90	1.70	1/2	1 3/8
7/16	.90	1.80	3/8	1 5/8
1/2	.90	1.80	5/8	1 7/8
5/8	1.00	1.90	1 1/8	1 3/4
3/4	1.10	2.10	3/4	1 7/8
7/8	1.20	2.30	7/8	2 1/8
1	1.30	2.50	1 1/8	2 3/8
1 1/8	1.40	2.70	1	2 5/8
1 1/4	1.50	3.00	1 1/8	2 7/8
1 1/2	1.80	3.50	1 1/4	2 5/4

SLOTING END MILLS

MORSE WITH BROWN AND SHARPE TAPER SHANK



No. 1911 Straight Flutes



No. 1912 Spiral Flutes
High Speed Steel—Two Lipped

Furnished right or left hand and when ordering specify hand wanted.

Spiral flute type right hand has a right hand spiral and left hand has a left hand spiral.

No. 5 shank furnished without tang.

No. 9 furnished with tang end or with tapped hole for draw-back spindle.

Diameter in.	Each High speed steel	Number of shank	Length over all, in.	Length of flutes, in.
1/4	\$3.40	5	2 1/8	3/8
1/4	5.30	7	4 3/8	3/8
1/2	3.40	5	2 1/2	1 1/2
1/2	5.30	7	4 1/2	1 1/2
3/8	5.40	7	4 3/8	1 1/2
1/2	5.40	7	4 1/2	1 1/2
1/2	5.40	7	4 3/4	1 1/2
3/4	5.60	7	4 1/2	1 1/2
3/4	5.80	7	5 1/8	1 1/2
1	6.70	7	5 1/2	1 1/2
1 1/4	9.90	9	6 3/4	1 1/2
1 1/4	11.60	9	7 1/2	1 1/2
1 1/2	14.60	9	7 1/2	2 1/4

MORSE STRAIGHT SHANK



No. 1913 Straight Flutes



No. 1914 Spiral Flutes

High Speed—Two Lipped

When ordering specify right or left hand.
Shank is same diameter as cutting size.

Diam., in.	Each High speed steel	Length over all, in.	Length of cut, in.	Diam., in.	Each High speed steel	Length over all, in.	Length of cut, in.
1/4	\$1.90	1 1/8	3/8	1/2	\$2.80	2 1/8	3/4
1/2	2.10	1 1/8	3/8	3/4	3.30	2 1/8	1 1/2
3/8	2.20	1 1/8	3/8	1	3.60	2 1/2	1 1/2
1/2	2.40	2	3/2				

ARBORS FOR SHELL END MILLS MORSE TAPER SHANK



No. 510

Specify when ordering whether for right or left hand mills.

Number	Each	Fitting sizes, in.	Morse taper shank Number
1	\$5.00	1 1/4 to 1 1/2	3
2	5.35	1 3/8 to 2 1/8	4
3	5.35	2 1/4 to 3	4

ADJUSTABLE HOLLOW MILLS

MORSE



Forcing the ring on the mill will correct any slight wear.

Dimensions other than listed are special.

No. 885 Carbon Steel

Diam. of hole, in.	Each Carbon steel	High speed steel	Diam. shank, in.	Length over all, in.
1/8	\$1.85	\$4.25	5/8	1 1/2
1/8	1.85	4.25	5/8	1 1/2
3/8	1.85	4.25	5/8	1 1/2
3/8	1.85	4.25	5/8	1 1/2
1/2	1.85	4.25	5/8	1 1/2
1/2	1.85	4.25	5/8	1 1/2
3/4	2.60	4.70	3/4	2
3/4	2.60	4.70	3/4	2
1	2.60	4.70	3/4	2
1 1/4	3.50	5.20	3/4	2

No. 1885 High Speed Steel

Diam. of hole, in.	Each Carbon steel	High speed steel	Diam. shank, in.	Length over all, in.
1/8	\$3.50	\$5.20	3/4	2
1/8	3.50	5.20	1	2 1/4
3/8	4.00	6.85	1	2 1/4
3/8	4.00	6.85	1	2 1/4
1/2	4.60	8.45	1 1/4	2 1/2
1/2	4.60	8.45	1 1/4	2 1/2
3/4	4.60	8.45	1 1/2	2 1/2
3/4	5.50	10.40	1 1/2	2 3/4
1	5.50	10.40	1 1/2	2 3/4
1	5.50	10.40	1 1/2	2 3/4

HOLLOW MILLS

MORSE



Holes in these mills are carefully ground to size and have a proper relief.

Dimensions other than listed are special.

No. 886 Carbon Steel

Diam. of hole, in.	Each Carbon steel	High speed steel	Outside diam., in.	Length over all, in.
1/8	\$1.35	\$3.60	5/8	1 1/2
1/8	1.35	3.60	5/8	1 1/2
3/8	1.35	3.60	5/8	1 1/2
3/8	1.35	3.60	5/8	1 1/2
1/2	1.35	3.60	5/8	1 1/2
1/2	1.35	3.60	5/8	1 1/2
3/4	2.00	3.90	3/4	1 1/2
3/4	2.00	3.90	3/4	1 1/2
1	2.00	3.90	3/4	1 1/2

No. 1886 High Speed Steel

Diam. of hole, in.	Each Carbon steel	High speed steel	Outside diam., in.	Length over all, in.
1/8	\$2.70	\$4.25	1	1 3/4
1/8	2.70	4.25	1	1 3/4
3/8	2.70	4.25	1	1 3/4
3/8	3.00	5.55	1 1/4	2
1/2	3.00	5.55	1 1/4	2
1/2	3.35	6.85	1 1/2	2
3/4	3.35	6.85	1 1/2	2
3/4	4.00	8.45	1 3/4	2 1/4
1	4.00	8.45	1 3/4	2 1/4

SHELL END MILLS

MORSE

Heavy Duty



Furnished right or left hand; specify hand wanted when ordering.

Right hand has right hand spiral.

Left hand has left hand spiral.

No. 1803 High Speed Steel

Diameter, in.	Each High speed steel	Width, in.	Hole, in.
1 1/4	\$5.40	1	3/2
1 1/2	6.00	1 1/8	1 1/2
1 3/4	6.70	1 1/4	3/4
2	7.70	1 3/8	3/4
2 1/4	9.00	1 1/2	1
2 1/2	10.70	1 5/8	1
2 3/4	12.10	1 3/4	1
3	14.20	1 3/4	1 1/4
3 1/2	19.20	1 7/8	1 1/4
4	25.50	2 1/4	1 1/2
4 1/2	30.80	2 1/4	1 1/2
5	36.70	2 1/4	1 1/2
5 1/2	42.10	2 1/4	2
6	50.20	2 1/4	2

SCREW SLOTTING CUTTERS

MORSE

No. 845 Carbon Steel

No. 1845 High Speed Steel

Fine pitch teeth adapted to cutting of screw heads and similar work.
Not ground on the sides.



No. of Gauge	Carbon Steel	High speed steel	Thickness in decimals of 1 inch	Diameter of cutter, in.	Diameter of hole, inches, carbon steel only
5	\$1.15	.....	.182	2 3/4	1
6	.95	*\$3.20	.162	2 3/4	1
7	.85	* 3.00	.144	2 3/4	1
8	.70	2.75	.128	2 3/4	3/4, 1
9	.65	2.50	.114	2 3/4	3/4, 1
10	.60	2.30	.102	2 3/4	3/4, 1
11	.55	2.05	.091	2 3/4	3/4, 1
12	.55	1.90	.081	2 3/4	3/4, 1
13	.55	1.90	.072	2 3/4	3/4, 1
14	.55	1.80	.064	2 3/4	1/2, 3/8, 3/4, 1
15	.50	1.70	.057	2 3/4	1/2, 3/8, 3/4, 1
16	.50	1.60	.051	2 3/4	1/2, 3/8, 3/4, 1
17	.35	1.55	.045	2 3/4	1/2, 3/8, 3/4, 1
18	.35	1.50	.040	2 3/4	1/2, 3/8, 3/4, 1
19	.35	1.50	.036	2 3/4	1/2, 3/8, 3/4, 1
20	.35	1.50	.032	2 3/4	1/2, 3/8, 3/4, 1
21	.30	1.50	.028	2 3/4	1/2, 3/8, 3/4, 1
22	.30	1.50	.025	2 3/4	1/2, 3/8, 3/4, 1
23	.30	1.50	.023	2 3/4	1/2, 3/8, 3/4, 1
24	.30	1.50	.020	2 3/4	1/2, 3/8, 3/4, 1
25	.30	.....	.018	2 3/4	1/2, 3/8, 3/4, 1
26	.30	.....	.016	2 3/4	3/4, 1
27	.30	.....	.014	2 3/4	3/4, 1
28	.30	.....	.013	2 3/4	3/4, 1
30	.30	.....	.010	2 3/4	3/4, 1
32	.30	.....	.008	2 3/4	3/4, 1
34	.30	.....	.006	2 3/4	3/4, 1
10	.55	.....	.102	2 3/4	3/4
11	.50	.....	.091	2 3/4	3/4
12	.50	.....	.081	2 3/4	3/4
13	.35	.....	.072	2 3/4	3/4
14	.35	1.75	.064	2 3/4	3/4
15	.30	1.60	.057	2 3/4	3/4
16	.30	1.50	.051	2 3/4	3/4
17	.30	1.50	.045	2 3/4	3/4
18	.30	1.45	.040	2 3/4	3/4
19	.30	1.45	.036	2 3/4	3/4
20	.30	1.45	.032	2 3/4	3/4
21	.30	1.45	.028	2 3/4	3/4
22	.30	1.45	.025	2 3/4	3/4
23	.30	1.45	.023	2 3/4	3/4
24	.30	1.45	.020	2 3/4	3/4
25	.30	.....	.018	2 3/4	3/4
26	.30	.....	.016	2 3/4	3/4
27	.30	.....	.014	2 3/4	3/4
28	.30	.....	.013	2 3/4	3/4
30	.30	.....	.010	2 3/4	3/4
32	.30	.....	.008	2 3/4	3/4
34	.30	.....	.006	2 3/4	3/4
14	.30	1.75	.064	1 3/4	3/4
15	.30	1.60	.057	1 3/4	3/4
16	.30	1.50	.051	1 3/4	3/4
17	.30	1.50	.045	1 3/4	3/4
18	.30	1.45	.040	1 3/4	3/4
19	.30	1.45	.036	1 3/4	3/4
20	.30	1.45	.032	1 3/4	3/4
21	.30	1.45	.028	1 3/4	3/4
22	.30	1.45	.025	1 3/4	3/4
23	.30	1.45	.023	1 3/4	3/4
24	.25	1.45	.020	1 3/4	1/2, 3/4
25	.25	.....	.018	1 3/4	1/2, 3/4
26	.25	.....	.016	1 3/4	1/2, 3/4
27	.25	.....	.014	1 3/4	1/2, 3/4
28	.25	.....	.013	1 3/4	1/2, 3/4
30	.25	.....	.010	1 3/4	1/2, 3/4
32	.25	.....	.008	1 3/4	1/2, 3/4
34	.25	.....	.006	1 3/4	1/2, 3/4

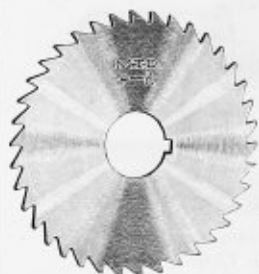
*1 inch hole only. Dimensions other than listed are special.

METAL SLITTING SAWS

MORSE

No. 841 Carbon Steel

No. 1841 High Speed Steel



These saws have holes ground to standard size and the sides are ground with a proper clearance to allow the cutting of deep slots.

Dimensions other than listed are special and subject to special prices.

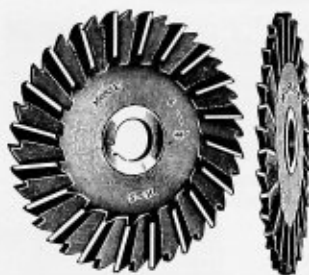
Dia., in.	Width of face, in.	Dia. of hole, in.	Carbon steel	High speed steel	Dia., in.	Width of face, in.	Dia. of hole, in.	Carbon steel	High speed steel
2 1/2	3/4	1/8	\$1.40	\$2.80	4	1/4	1	\$2.50	\$5.00
2 1/2	3/4	3/8	1.40	2.80	4	3/8	1	2.60	5.20
2 1/2	3/4	1/2	1.40	2.80	4	1/2	1	2.80	5.50
2 1/2	3/4	3/4	1.40	2.80	5	1/4	1	2.90	5.80
3	3/4	1	1.70	3.30	5	3/8	1	3.20	6.30
3	3/4	1	1.70	3.30	5	1/2	1	3.30	6.60
3	3/4	1	1.70	3.40	5	3/4	1	3.50	7.00
3	3/4	1	1.70	3.40	6	1/4	1	3.70	7.40
3	3/4	1	1.80	3.50	6	3/8	1	3.70	7.30
3	3/4	1	1.90	3.70	6	1/2	1	4.20	8.40
4	3/4	1	2.20	4.30	6	3/4	1	4.30	8.60
4	3/4	1	2.20	4.40	6	1/2	1-1/4	5.20	10.40
4	1/2	1	2.30	4.50	8	1/4	1-1/4	8.80	17.50
4	3/4	1	2.40	4.70	8	3/8	1 1/4	9.90	19.80

ALTERNATE TOOTH SLITTING SAWS

MORSE

No. 1843

High Speed Steel



Resembles a staggered tooth cutter. Fast and easy cutting due to the alternate tooth form which provides easy shearing action and plenty chip space between the side teeth. Made to withstand deeper cuts and coarser feeds than other types of saws.

Prices on Application.

SCREW SLOTTING CUTTER ARBORS



No. 536

For Nos. 845 and 1845 screw slotting cutters.

Nos.	Each	Fitting holes inches	Length overall, in.
1	\$6.75	3/8	6
2	6.75	1/2	6
3	6.75	5/8	6
4	6.75	3/4	6
5	6.75	7/8	6
6	6.75	1	6

STOCKING CUTTERS

MORSE FOR INVOLUTE CUTTERS



No. 930 Carbon Steel
No. 1930 High Speed Steel
Standard holes.

5 pitch and coarser teeth stepped as shown.
6 pitch and finer, alternate teeth stepped.

One cutter is made for each diametrical pitch. Cutters listed are for milling gears having 14½ degree pressure angle, but other pressure angles furnished on order.

Dimensions not listed are special.

Diametrical pitch	Each—		Diameter of cutter, in.	Diameter of hole, in.
	Carbon steel	High speed steel		
*1	\$75.90	\$151.80	8½	2
*1¼	59.20	118.30	7¾	2
*1½	38.90	77.80	7	1¾
1¾	30.20	60.40	6½	1¾
2	22.30	44.50	5¾	1½
2½	20.00	40.00	5¼	1½
3	12.60	25.10	4¾	1¼
4	9.60	19.20	4¼	1¼
5	7.80	15.50	3¾	1¼
6	6.20	12.30	3¼	1
7	5.40	10.70	2¾	1
8	5.10	10.20	2½	1

*Not carried in stock, made to order.

1 INCH HOLE

No. 931 Carbon Steel

No. 1931 High Speed Steel

1¼ INCH HOLE

No. 932 Carbon Steel

No. 1932 High Speed Steel

With 1 Inch Hole				With 1¼ Inch Hole			
Diam. pitch	Each—		Diam. of cutter, in.	Diam. pitch	Each—		Diam. of cutter, in.
	Carbon steel	High speed steel			Carbon steel	High speed steel	
4	\$8.20	\$16.40	3¾	6	\$6.70	\$13.40	3½
5	7.20	14.30	3¾	7	6.30	12.60	3¾
				8	5.60	11.10	3¼

1½ INCH HOLE

No. 933 Carbon Steel

No. 1933 High Speed Steel

1¾ INCH HOLE

No. 934 Carbon Steel

No. 1934 High Speed Steel

With 1½ Inch Hole				With 1¾ Inch Hole			
Diam. pitch	Each—		Diam. of cutter, in.	Diam. pitch	Each—		Diam. of cutter, in.
	Carbon steel	High speed steel			Carbon steel	High speed steel	
3	\$14.50	\$29.00	5¼	2	\$26.30	\$52.60	6½
4	10.40	20.70	4½	2½	23.70	47.30	6¾
5	9.00	18.00	4¼	3	17.80	35.50	5¾
6	7.90	15.70	3¾	4	11.10	22.20	4¾
				5	9.70	19.40	4¾

INVOLUTE GEAR CUTTERS

MORSE

In grinding the face of the teeth, care must be used to keep the face of each tooth radial.

To cut a set of interchangeable wheels with theoretical accuracy, as many cutters would be required as there are different wheels in a set. The shape of the teeth vary with every change in the number of teeth in the wheels. As this form is slight and becomes less with each increase in number of teeth, a set of wheels ranging from a pinion of twelve teeth to a rack can be cut with sufficient accuracy for most purposes by the use of eight cutters as follows:

- No. 1 will cut gears from 135 teeth to a rack.
- No. 2 will cut gears from 55 teeth to 134 teeth.
- No. 3 will cut gears from 35 teeth to 54 teeth.
- No. 4 will cut gears from 26 teeth to 34 teeth.
- No. 5 will cut gears from 21 teeth to 25 teeth.
- No. 6 will cut gears from 17 teeth to 20 teeth.
- No. 7 will cut gears from 14 teeth to 16 teeth.
- No. 8 will cut gears from 12 teeth to 13 teeth.

For more accurate teeth the half number cutters as follows are used:

- No. 1½ will cut gears from 80 teeth to 134 teeth.
- No. 2½ will cut gears from 42 teeth to 54 teeth.
- No. 3½ will cut gears from 30 teeth to 34 teeth.
- No. 4½ will cut gears from 23 teeth to 25 teeth.
- No. 5½ will cut gears from 19 teeth to 20 teeth.
- No. 6½ will cut gears from 15 teeth to 16 teeth.
- No. 7½ will cut gears of 13 teeth.

Each cutter is marked with number, pitch and number of teeth.



No. 940 Carbon Steel
No. 1940 High Speed Steel

All gears of same pitch cut with these cutters will interchange.

Diametrical pitch	Each—		Diameter of cutter, in.	Diameter of hole, in.
	Carbon steel	High speed steel		
*1	\$75.90	\$151.80	8½	2
*1¼	59.20	118.30	7¾	2
*1½	38.90	77.80	7	1¾
1¾	30.20	60.40	6½	1¾
2	22.30	44.50	5¾	1½
2½	20.00	40.00	5¼	1½
3	12.60	25.10	4¾	1¼
4	9.60	19.20	4¼	1¼
5	7.80	15.50	3¾	1¼
6	6.20	12.30	3¼	1
7	5.40	10.70	2¾	1
8	5.10	10.20	2½	1
9	4.50	9.00	2¼	1
10	4.10	8.20	2¾	¾
11	4.00	7.90	2¾	¾
12	3.60	7.20	2¼	¾
14	3.50	6.90	2¼	¾
16	3.50	6.90	2¼	¾
18	3.10	6.20	2	¾
20	3.10	6.20	2	¾
22	3.10	6.20	2	¾
24	3.00	6.00	1¾	¾
26	2.90	5.80	1¾	¾
28	2.90	5.80	1¾	¾
30	2.90	5.80	1¾	¾
32	2.90	5.80	1¾	¾
36	2.90	5.80	1¾	¾
40	2.90	5.80	1¾	¾
48	2.90	5.80	1¾	¾

*Not carried in stock; made to order.

INVOLUTE GEAR CUTTERS

MORSE



1 INCH HOLE

No. 942 Carbon Steel
No. 1942 High Speed Steel

1 1/4 INCH HOLE

No. 943 Carbon Steel
No. 1943 High Speed Steel

1 1/2 INCH HOLE

No. 944 Carbon Steel
No. 1944 High Speed Steel

1 3/4 INCH HOLE

No. 945 Carbon Steel
No. 1945 High Speed Steel

Eight cutters made for each pitch.
Dimensions other than listed are special.

WITH 1 INCH HOLE

Diamet'l pitch	Each Carbon steel	High speed steel	Diam. of cutter, in.
4	\$8.20	\$16.40	3 3/8
5	7.20	14.30	3 3/8
10	4.50	9.00	2 3/4
11	4.30	8.60	2 5/8
12	4.30	8.60	2 5/8
14	3.80	7.60	2 1/2
16	3.80	7.60	2 1/2
18	3.80	7.60	2 3/8
20	3.80	7.60	2 3/8
22	3.50	6.90	2 1/4
24	3.50	6.90	2 1/4

WITH 1 1/4 INCH HOLE

Diamet'l pitch	Each Carbon steel	High speed steel	Diam. of cutter, in.
6	\$6.70	\$13.40	3 1/2
7	6.30	12.60	3 3/8
8	5.60	11.10	3 1/4
9	5.40	10.70	3 1/4
10	4.90	9.80	3
12	4.70	9.40	2 7/8

WITH 1 1/2 INCH HOLE

Diamet'l pitch	Each Carbon steel	High speed steel	Diam. of cutter, in.
3	\$14.50	\$29.00	5 1/4
4	10.40	20.70	4 1/2
5	9.00	18.00	4 1/4
6	7.90	15.70	3 7/8
7	6.80	13.50	3 5/8
8	6.10	12.10	3 1/2

WITH 1 3/4 INCH HOLE

Diamet'l pitch	Each Carbon steel	High speed steel	Diam. of cutter, in.
2	\$26.30	\$52.60	6 1/2
2 1/2	23.70	47.30	6 1/4
3	17.80	35.50	5 5/8
4	11.10	22.20	4 3/4
5	9.70	19.40	4 3/8
6	8.40	16.80	4 1/4

MITRE AND BEVEL GEAR CUTTERS

MORSE



No. 964 Carbon Steel

No. 1964 High Speed Steel

Eight cutters made for each pitch.
Dimensions not listed are special.

Diamet'l pitch	Each Carbon steel	High speed steel	Diam. of cutter, in.	Diameter of hole, in.
3	\$10.00	\$19.90	4	1 1/4
4	8.20	16.40	3 5/8	1 1/4
5	7.20	14.30	3 3/8	1 1/4
6	6.20	12.30	3 1/8	1
7	5.40	10.70	2 7/8	1
8	5.10	10.20	2 7/8	1
10	4.10	8.20	2 3/8	3/8
12	3.60	7.20	2 1/4	3/8
14	3.50	6.90	2 1/4	3/8
16	3.50	6.90	2 1/4	3/8
20	3.10	6.20	2	3/8
24	3.00	6.00	1 3/4	3/8

SPROCKET WHEEL CUTTERS

MORSE



No. 987 Carbon Steel

No. 1987 High Speed Steel

For Roller Chains

American Standard tooth form
adopted by S.A.E., A.S.M.E. and
A.G.M.A.

Circular pitch, in.	Each Carbon steel	High speed steel	Diam. of roll, in.	No. of teeth in sprocket	Diam. cutter, in.	Width cutter, in.	Size hole in cutter, in.
3/8			.200	6	2 3/4	3/8	1
3/8			.200	7-8	2 3/4	3/8	1
3/8			.200	9-11	2 3/4	3/8	1
3/8			.200	12-17	2 3/4	3/8	1
3/8			.200	18-34	2 3/4	3/8	1
3/8			.200	35 & over	2 3/4	3/8	1
1/2 to 5/8			.313	6	3	3/4	1
1/2 to 5/8			.313	7-8	3	3/4	1
1/2 to 5/8			.313	9-11	3 1/8	3/4	1
1/2 to 5/8			.313	12-17	3 1/8	3/4	1
1/2 to 5/8			.313	18-34	3 1/8	3/4	1
1/2 to 5/8			.313	35 & over	3 1/8	3/4	1
5/8			.400	6	3 1/8	3/4	1
5/8			.400	7-8	3 1/8	3/4	1
5/8			.400	9-11	3 3/4	3/4	1
5/8			.400	12-17	3 3/4	3/4	1
5/8			.400	18-34	3 3/4	3/4	1
5/8			.400	35 & over	3 3/4	3/4	1
3/4			.469	6	3 3/4	3/4	1
3/4			.469	7-8	3 3/4	3/4	1
3/4			.469	9-11	3 3/8	3/4	1
3/4			.469	12-17	3 3/8	3/4	1
3/4			.469	18-34	3 3/8	3/4	1
3/4			.469	35 & over	3 3/8	3/4	1
1			.563	6	3 3/8	1 1/4	1 1/4
1			.563	7-8	3 3/8	1 1/4	1 1/4
1			.563	9-11	3 7/8	1 1/4	1 1/4
1			.563	12-17	4	1 1/4	1 1/4
1			.563	18-34	4	1 1/4	1 1/4
1			.563	35 & over	4	1 1/4	1 1/4
1 to 1 1/4			.625	6	3 7/8	1 1/2	1 1/4
1 to 1 1/4			.625	7-8	4	1 1/2	1 1/4
1 to 1 1/4			.625	9-11	4 1/8	1 1/2	1 1/4
1 to 1 1/4			.625	12-17	4 1/8	1 1/2	1 1/4
1 to 1 1/4			.625	18-34	4 1/8	1 1/2	1 1/4
1 to 1 1/4			.625	35 & over	4 1/8	1 1/2	1 1/4
1 1/4 to 1 1/2			.750	6	4 1/8	1 1/2	1 1/4
1 1/4 to 1 1/2			.750	7-8	4 1/8	1 1/2	1 1/4
1 1/4 to 1 1/2			.750	9-11	4 1/2	1 1/2	1 1/4
1 1/4 to 1 1/2			.750	12-17	4 1/2	1 1/2	1 1/4
1 1/4 to 1 1/2			.750	18-34	4 1/2	1 1/2	1 1/4
1 1/4 to 1 1/2			.750	35 & over	4 1/2	1 1/2	1 1/4
1 1/2			.875	6	4 1/8	1 1/2	1 1/4
1 1/2			.875	7-8	4 1/2	1 1/2	1 1/4
1 1/2			.875	9-11	4 1/2	1 1/2	1 1/4
1 1/2			.875	12-17	4 1/2	1 1/2	1 1/4
1 1/2			.875	18-34	4 1/2	1 1/2	1 1/4
1 1/2			.875	35 & over	4 1/2	1 1/2	1 1/4
1 3/4			1.000	6	5	2 3/8	1 1/2
1 3/4			1.000	7-8	5 1/8	2 3/8	1 1/2
1 3/4			1.000	9-11	5 1/4	2 3/8	1 1/2
1 3/4			1.000	12-17	5 1/4	2 3/8	1 1/2
1 3/4			1.000	18-34	5 1/4	2 3/8	1 1/2
1 3/4			1.000	35 & over	5 1/4	2 3/8	1 1/2
2			1.125	6	5 1/2	2 3/4	1 1/2
2			1.125	7-8	5 1/2	2 3/4	1 1/2
2			1.125	9-11	5 1/2	2 3/4	1 1/2
2			1.125	12-17	5 1/2	2 3/4	1 1/2
2			1.125	18-34	5 1/2	2 3/4	1 1/2
2			1.125	35 & over	5 1/2	2 3/4	1 1/2
2 1/2			1.5625	6	6 3/8	3	1 3/4
2 1/2			1.5625	7-8	6 3/8	3	1 3/4
2 1/2			1.5625	9-11	6 3/8	3	1 3/4
2 1/2			1.5625	12-17	6 3/8	3	1 3/4
2 1/2			1.5625	18-34	7	3 1/8	1 3/4
2 1/2			1.5625	35 & over	7 1/8	3 1/8	1 3/4
3			1.900	6	7 1/2	3 1/2	2
3			1.900	7-8	7 1/2	3 1/2	2
3			1.900	9-11	7 1/2	3 1/2	2
3			1.900	12-17	8	3 1/2	2
3			1.900	18-34	8	3 1/2	2
3			1.900	35 & over	8 1/4	3 1/2	2

PRICES ON APPLICATION

PRICES ON APPLICATION

HAND TAPS

MORSE, CARBON STEEL

Taper.



Plug.



Bottoming.

Sizes and dimensions not listed and left hand taps special.

No. 1040

Diam. of tap, in.	Carbon steel		Number of threads to the inch—			Lgth. over all, in.
	Each	Per set	N.C. (U.S.S.)	N.F. (S.A.E.)	N.S. (U.S.F.)	
$\frac{1}{8}$	\$0.50	\$1.50	..	..	64	1 $\frac{1}{8}$
$\frac{3}{16}$	.40	1.20	..	..	48	1 $\frac{1}{4}$
$\frac{1}{4}$	.35	1.05	..	..	40	1 $\frac{3}{8}$
$\frac{5}{16}$	.35	1.05	..	..	32, 36	2 $\frac{1}{8}$
$\frac{3}{8}$	.40	1.20	..	..	24, 32	2 $\frac{3}{8}$
$\frac{7}{16}$	.45	1.35	..	..	24, 32	2 $\frac{7}{8}$
$\frac{1}{2}$	.45	1.35	20	28	24, 27, 32	3 $\frac{1}{8}$
$\frac{5}{8}$	.50	1.50	18	24	20, 27, 32	3 $\frac{3}{8}$
$\frac{3}{4}$	.55	1.65	16	24	20, 27	4 $\frac{1}{8}$
$\frac{7}{8}$	.60	1.80	14	20	24, 27	4 $\frac{3}{8}$
1	.70	2.10	13	20	12, 24, 27	5 $\frac{1}{8}$
$1\frac{1}{8}$	.80	2.40	12	18	27	5 $\frac{3}{8}$
$1\frac{1}{4}$	.90	2.70	11	18	12, 27	6 $\frac{1}{8}$
$1\frac{1}{2}$	1.05	3.15	..	..	11, 16	6 $\frac{3}{8}$
$1\frac{3}{4}$	1.20	3.60	10	16	12, 27	7 $\frac{1}{8}$
$1\frac{7}{8}$	1.60	4.80	9	14	12, 18, 27	7 $\frac{3}{8}$
2	2.00	6.00	8	14	12, 27	8 $\frac{1}{8}$
$2\frac{1}{8}$	2.25	6.75	7	12	..	9 $\frac{1}{8}$
$2\frac{1}{4}$	2.60	7.80	7	12	..	9 $\frac{3}{8}$
$2\frac{3}{8}$	3.00	9.00	6	12	..	10 $\frac{1}{8}$
$2\frac{1}{2}$	3.50	10.50	6	12	..	10 $\frac{3}{8}$
$2\frac{3}{4}$	4.20	12.60	..	..	5 $\frac{1}{2}$	11 $\frac{1}{8}$
$2\frac{7}{8}$	5.00	15.00	5	..	..	11 $\frac{3}{8}$
3	5.80	17.40	..	..	5	12 $\frac{1}{8}$
$3\frac{1}{8}$	6.70	20.10	4 $\frac{1}{2}$	..	..	13 $\frac{1}{8}$

MORSE, HIGH SPEED STEEL

Ground thread hand taps in sizes $\frac{1}{4}$ in. to $\frac{1}{2}$ in. diameter inclusive, 3 flute, plug or bottoming style, will be furnished at regular prices when so ordered.

Carbon steel ground thread hand taps are special.

When ground thread taps are ordered commercial ground threads will be furnished unless otherwise specified.

All other data same as No. 1040 tap above.

No. 2040 Cut Thread

No. 2046 Ground Thread

Diam. of tap, in.	High speed steel		Number of threads to the inch—			Lgth. over all, in.
	No. 2040 Cut thread	No. 2046 Ground thread	N.C. (U.S.S.)	N.F. (S.A.E.)	N.S. (U.S.F.)	
$\frac{1}{4}$	\$0.85	\$0.85	20	28	..	2 $\frac{1}{8}$
$\frac{3}{16}$	.95	.95	18	24	..	2 $\frac{3}{8}$
$\frac{1}{8}$	1.10	1.10	16	24	..	2 $\frac{7}{8}$
$\frac{5}{16}$	1.30	1.30	14	20	..	3 $\frac{1}{8}$
$\frac{3}{8}$	1.55	1.55	13	20	..	3 $\frac{3}{8}$
$\frac{7}{16}$	1.85	1.85	12	18	..	3 $\frac{7}{8}$
$\frac{1}{2}$	2.20	2.20	11	18	..	4 $\frac{1}{8}$
$\frac{5}{8}$	2.60	2.60	..	..	11-16	4 $\frac{3}{8}$
$\frac{3}{4}$	3.10	3.10	10	16	..	4 $\frac{7}{8}$
$\frac{7}{8}$	4.30	4.30	9	14	18	5 $\frac{1}{8}$
1	5.75	5.75	8	14	..	5 $\frac{3}{8}$
$1\frac{1}{8}$	7.45	7.45	7	12	..	6 $\frac{1}{8}$
$1\frac{1}{4}$	9.55	9.55	6	12	..	6 $\frac{3}{8}$
$1\frac{3}{8}$	11.95	11.95	6	12	..	6 $\frac{7}{8}$
$1\frac{1}{2}$	14.75	14.75	6	12	..	7 $\frac{1}{8}$

HAND TAPS

MORSE, CARBON AND HIGH SPEED STEEL

Two and Three
Fluted



Two fluted.



Three fluted.

Plug taps furnished unless otherwise specified. When ground thread taps are ordered, commercial ground threads will be furnished unless otherwise specified.

Same dimensions as left hand column this page.

Two Fluted 1/16 to 5/16 in. Three Fluted 3/16 to 1/2 in.

No. 1040 Carbon Steel

Diameter of tap, in.	Each		Number of threads to the inch—		
	Two flute	Three flute	N.C. (U.S.S.)	N.F. (S.A.E.)	N.S. (U.S.F.)
$\frac{1}{8}$	\$0.50	..	..	..	64
$\frac{3}{16}$	.35	..	..	..	40
$\frac{1}{4}$	.40	\$0.40	..	..	24, 32
$\frac{5}{16}$	.45	.45	..	..	24
$\frac{3}{8}$	.45	.45	20	28	..
$\frac{7}{16}$	.50	.50	18	24	..
$\frac{1}{2}$	..	.55	16	24	..
$\frac{5}{8}$	..	.60	14	20	..
$\frac{3}{4}$	..	.70	13	20	..

High Speed Steel

No. 2040 Cut Thread

No. 2046 Ground Thread

Diameter of tap, in.	Two flute		Three flute		N.C. (U.S.S.)	N.F. (S.A.E.)
	Cut thread	Ground thread	Cut thread	Ground thread		
$\frac{1}{4}$	\$0.85	\$0.85	\$0.85	\$0.85	20	28
$\frac{3}{16}$	.95	.95	.95	.95	18	24
$\frac{1}{8}$	..	..	1.10	1.10	16	24
$\frac{5}{16}$	..	..	1.30	1.30	14	20
$\frac{3}{8}$	..	..	1.55	1.55	13	20

MORSE, CARBON AND HIGH SPEED STEEL

Spiral Pointed



Furnished in plug
style only.

National (U.S.S.) form of thread furnished unless otherwise specified.

$\frac{1}{8}$ to $\frac{3}{8}$ in. taps have shanks full diameter of thread. When so specified $\frac{3}{8}$ in. taps with shanks smaller than root diameter of thread will be furnished at regular prices.

$\frac{1}{2}$ to $\frac{3}{4}$ in. have shanks smaller than root diameter of thread. When ground thread taps are ordered, commercial ground thread will be furnished unless otherwise ordered.

Sizes and dimensions not listed and left hand taps are special. Same dimensions as left hand column on this page.

Diam. of tap, in.	High speed steel		Threads per inch—			Number of flutes	Length over all, in.
	No. 2045 Cut thread	No. 2047 Ground thread	N.C. U.S.S.	N.F. S.A.E.	N.S. U.S.F.		
$\frac{1}{4}$	\$0.45	..	..	..	40	2	1 $\frac{1}{8}$
$\frac{3}{16}$	.50	..	..	..	24, 32	2	2 $\frac{1}{8}$
$\frac{1}{8}$	.55	\$0.95	20	28	..	2	2 $\frac{3}{8}$
$\frac{5}{16}$	.60	1.05	18	24	..	2	2 $\frac{7}{8}$
$\frac{3}{8}$	.70	1.25	16	24	..	3	3 $\frac{1}{8}$
$\frac{7}{16}$	.75	1.45	14	20	..	3	3 $\frac{3}{8}$
$\frac{1}{2}$	.85	1.70	13	20	..	3	3 $\frac{7}{8}$
$\frac{5}{8}$	1.00	2.05	12	18	..	3	4 $\frac{1}{8}$
$\frac{3}{4}$	1.10	2.40	11	18	..	3	4 $\frac{3}{8}$
$\frac{7}{8}$	1.45	3.35	10	16	..	3	4 $\frac{7}{8}$

MACHINE SCREW TAPS MORSE CARBON STEEL



No. 1066

Plug taps furnished unless otherwise specified.
Nos. 0 to 6 furnished with three flutes.
Nos. 8 to 14 furnished with four flutes.
Sizes not listed and left hand taps are special.

Two Fluted Taps

Furnished in plug and bottoming only, Nos. 0 to 14.
Tapers are special.

Three Fluted Taps

Furnished in taper, plug or bottoming style up to No. 6 inclusive, and in plug or bottoming style only No. 8 and larger.

Taper and bottoming three fluted taps, No. 8 and larger, are special.

Taper Nos. 8 to 14 are special.

Four Fluted Taps

Furnished in taper, plug and bottoming Nos. 8 to 14 all others are special.

Screw Gauge Nos.	Basic major diam., in.	Each	Per dozen	Threads per inch—			Length of thread, in.	Length over all, in.
				N.C.	N.F.	N.S.		
0	.060	\$0.50	\$6.00	..	80	....	$\frac{1}{16}$	1 $\frac{1}{8}$
1	.073	.50	6.00	64	72	56	$\frac{3}{16}$	1 $\frac{1}{8}$
2	.086	.45	5.40	56	64	....	$\frac{1}{8}$	1 $\frac{1}{8}$
3	.099	.40	4.80	48	56	....	$\frac{1}{8}$	1 $\frac{1}{8}$
4	.112	.40	4.80	40	48	32, 36	$\frac{1}{8}$	1 $\frac{1}{8}$
5	.125	.35	4.20	40	44	36	$\frac{5}{16}$	1 $\frac{1}{8}$
6	.138	.35	4.20	32	40	36	$\frac{1}{2}$	2
8	.164	.35	4.20	32	36	30, 40	$\frac{3}{4}$	2 $\frac{1}{8}$
10	.190	.40	4.80	24	32	28, 30	$\frac{7}{8}$	2 $\frac{3}{8}$
12	.216	.45	5.40	24	28	32	$1\frac{1}{8}$	2 $\frac{3}{8}$
14	.242	.45	5.40	..	..	20, 24	1	2 $\frac{1}{2}$

MORSE HIGH SPEED STEEL



No. 2066 Cut Thread

No. 2068 Ground Thread

Furnished with National form of thread unless otherwise specified.

Unless otherwise ordered furnished in plug style only.

When so specified they will be furnished in taper or bottoming style at regular prices.

Nos. 4 to 14 also furnished with two flutes and Nos. 8 to 14 with three flutes, in plug or bottoming styles only.

Sizes and dimensions not listed are special.

Left hand taps are special.

When ground thread taps are ordered commercial ground threads will be furnished unless otherwise specified.

Screw Gauge Nos.	Basic major diam., in.	Each		Threads per inch—			Stand-ard No. of flutes	Length full thread, in.	Length over all, in.
		No. 2066 Cut thread	No. 2068 Ground thread	N.C.	N.F.	N.S.			
4	.112	\$0.70	\$0.70	40	48	36	3	$\frac{1}{16}$	1 $\frac{1}{8}$
5	.125	.70	.70	40	44	..	3	$\frac{5}{16}$	1 $\frac{1}{8}$
6	.138	.70	.70	32	40	..	3	$\frac{1}{2}$	2
8	.164	.70	.70	32	36	..	4	$\frac{3}{4}$	2 $\frac{1}{8}$
10	.190	.75	.75	24	32	..	4	$\frac{7}{8}$	2 $\frac{3}{8}$
12	.216	.80	.80	24	28	..	4	$1\frac{1}{8}$	2 $\frac{3}{8}$
14	.242	.85	.85	..	..	20, 24	4	1	2 $\frac{1}{2}$

MACHINE SCREW TAPS MORSE, CARBON AND HIGH SPEED STEEL



Spiral Pointed—Two Fluted

No. 1067—Carbon Steel

No. 2067—High Speed Steel Cut Thread

No. 2070—High Speed Steel Ground Thread

Furnished in plug style only.

Sizes and dimensions not listed are special.

When ground thread taps are ordered commercial ground threads will be furnished unless otherwise ordered.

Screw Gauge Nos.	Basic major diam., in.	Carbon steel No. 1067	Each—High speed steel		Threads per inch—			Length over all, in.
			No. 2067 Cut thread	No. 2070 Ground thread	N.C.	N.F.	N.S.	
3	.099	\$0.60	....	....	48	56	..	1 $\frac{1}{8}$
4	.112	.50	\$0.80	\$0.80	40	48	36	1 $\frac{1}{8}$
5	.125	.45	.80	.80	40	44	..	1 $\frac{1}{8}$
6	.138	.45	.80	.80	32	40	..	2
8	.164	.45	.80	.80	32	36	..	2 $\frac{1}{8}$
10	.190	.50	.85	.85	24	32	..	2 $\frac{3}{8}$
12	.216	.55	.90	.90	24	28	..	2 $\frac{3}{8}$
14	.242	.55	.95	.95	..	..	20, 24	2 $\frac{1}{2}$

STOVE BOLT TAPS MORSE



No. 1076—Carbon Steel

These taps are furnished in plug style only.

Sizes and dimensions not listed are special. Left hand taps are special.

Diameter of tap, in.	Each	Per dozen	No. of threads to the inch	Length over all, in.
$\frac{3}{16}$	\$0.40	\$4.80	24	2 $\frac{3}{8}$
$\frac{1}{4}$	.45	5.40	18	2 $\frac{1}{2}$
$\frac{5}{16}$	.50	6.00	18	2 $\frac{1}{8}$
$\frac{3}{8}$	.55	6.60	16	2 $\frac{1}{8}$

PIPE TAPS

MORSE, CARBON STEEL



No. 1115 Taper



No. 1118 Straight

American Standard

Right hand taper will be furnished unless otherwise specified. Also furnished left hand taper up to 4 inch and right hand straight $\frac{1}{8}$ to 2 in.

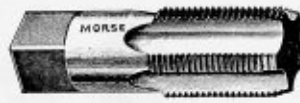
$\frac{1}{8}$ taps furnished with larger shank unless otherwise specified.

Taps with interrupted thread furnished. Prices on application.

Sizes and dimensions not listed are special.

Nominal size, in.	Taper—Each			Straight—Each	Threads per in.	Dimensions, in.—		Length over all, in.
	No. 1115 Right hand	No. 1115 Left hand	No. 1118 Right hand	No. 1118 Left hand		Diameter of shank	Size of square	
$\frac{1}{8}$	\$1.00	\$1.00	\$1.00		27	.312	.234	$2\frac{1}{8}$
$\frac{1}{4}$	1.20	1.20	1.20		18	.437	.328	$2\frac{1}{4}$
$\frac{3}{8}$	1.60	1.60	1.60		18	.562	.421	$2\frac{3}{8}$
$\frac{1}{2}$	2.00	2.00	2.00		14	.700	.531	$2\frac{1}{2}$
$\frac{3}{4}$	2.80	2.80	2.80		14	.875	.679	$3\frac{1}{8}$
1	4.40	4.40	4.40		11 $\frac{1}{2}$	1.125	.843	$3\frac{3}{4}$
1 $\frac{1}{4}$	5.00	5.00	5.00		11 $\frac{1}{2}$	1.312	.984	4
1 $\frac{3}{4}$	6.60	6.60	6.60		11 $\frac{1}{2}$	1.500	1.125	$4\frac{1}{4}$
2	10.00	10.00	10.00		11 $\frac{1}{2}$	1.875	1.406	$4\frac{1}{2}$
2 $\frac{1}{2}$	15.00	15.00			8	2.250	1.687	$5\frac{1}{2}$
3	22.50	22.50			8	2.625	1.968	6
3 $\frac{1}{2}$	30.00	30.00			8	2.812	2.108	$6\frac{1}{2}$
4	45.00	45.00			8	3.000	2.250	$6\frac{3}{4}$

MORSE, HIGH SPEED STEEL



No. 2115 Taper Cut Thread

No. 2118 Straight Cut Thread

No. 2119 Taper Ground Thread

No. 2123 Straight Ground Thread

American Standard

Right hand taper will be furnished unless otherwise specified.

$\frac{1}{8}$ in. taps will be furnished with larger shank unless otherwise specified.

Left hand and sizes not listed are special.

When ground threads are ordered, commercial ground threads will be furnished unless otherwise specified.

Nominal size, in.	Each—				No. of threads to the in.	Dimensions, in.—		Length over all, in.
	Cut thread high speed steel No. 2115 Taper	Cut thread high speed steel No. 2118 Straight	Ground thread high speed steel No. 2119 Taper	Ground thread high speed steel No. 2123 Straight		Diam. shank	Size square	
$\frac{1}{8}$	\$1.60	\$1.60	\$1.60	\$1.60	27	.312	.234	$2\frac{1}{8}$
$\frac{1}{4}$	1.80	1.80	1.80	1.80	18	.437	.328	$2\frac{1}{4}$
$\frac{3}{8}$	2.30	2.30	2.30	2.30	18	.562	.421	$2\frac{3}{8}$
$\frac{1}{2}$	4.40	4.40	4.40	4.40	14	.700	.531	$2\frac{1}{2}$
$\frac{3}{4}$	6.10	6.10	6.10	6.10	14	.875	.679	$3\frac{1}{8}$
1	9.20	9.20	9.20	9.20	11 $\frac{1}{2}$	1.125	.843	$3\frac{3}{4}$
1 $\frac{1}{4}$	13.10		13.10		11 $\frac{1}{2}$	1.312	.984	4
1 $\frac{3}{4}$	17.70		17.70		11 $\frac{1}{2}$	1.500	1.125	$4\frac{1}{4}$
2	24.00		24.00		11 $\frac{1}{2}$	1.875	1.406	$4\frac{1}{2}$

PIPE REAMERS

MORSE



No. 1116 Carbon Steel

Tapered $\frac{3}{4}$ of an inch to the foot and are for reaming holes to be tapped with American Standard taper pipe taps. Sizes and dimensions not listed are special.

Nominal size, in.	Each	Length over all, in.	Nominal size, in.	Each	Length over all, in.
$\frac{1}{8}$	\$1.00	$2\frac{1}{8}$	$1\frac{1}{2}$	\$6.60	$4\frac{1}{4}$
$\frac{1}{4}$	1.20	$2\frac{1}{4}$	2	10.00	$4\frac{1}{2}$
$\frac{3}{8}$	1.60	$2\frac{3}{8}$	$2\frac{1}{2}$	15.00	$5\frac{1}{2}$
$\frac{1}{2}$	2.00	$3\frac{1}{4}$	3	22.50	6
$\frac{3}{4}$	2.80	$3\frac{3}{4}$	$3\frac{1}{2}$	30.00	$6\frac{1}{2}$
1	4.40	$3\frac{3}{4}$	4	45.00	$6\frac{3}{4}$
1 $\frac{1}{4}$	5.00	4			

TAP EXTRACTORS

WALTON



Quickly removes taps without injuring thread. Crucible steel prongs or fingers are pushed down into the flutes of the tap, holder in then pushed down till it touches the tap and the sleeve until it touches the work, twist forward and backward to loosen then unscrew.

Size	Each	Extra fingers, each	Size	Each	Extra fingers, each
$\frac{1}{8}$ in.	\$1.50	\$0.06	$\frac{1}{8}$ in.	\$2.00	\$0.15
No. 10	1.50	.06	$\frac{3}{8}$ in.	2.20	.20
No. 12	1.55	.08	$\frac{1}{2}$ in.	2.45	.20
$\frac{1}{4}$ in.	1.55	.10	$\frac{3}{4}$ in.	2.75	.25
$\frac{5}{16}$ in.	1.60	.10	1 in.	3.10	.25
$\frac{3}{8}$ in.	1.60	.12	$1\frac{1}{8}$ in.	3.50	.25
$\frac{7}{16}$ in.	1.70	.12	$1\frac{1}{4}$ in.	4.00	.25
$\frac{1}{2}$ in.	1.85	.15			

For Nos. 14 and 16 tap use $\frac{1}{4}$ in. extractor.

For Nos. 18 and 19 tap use $\frac{3}{8}$ in. extractor.

For Nos. 22, 24 and 26 tap use $\frac{1}{2}$ in. extractor.

Note—Specify on ordering for three or four flute taps.

SCREW EXTRACTORS

MORSE



To remove a broken screw, drill a hole in the screw, insert screw extractor and turn to the left to take out the screw.

No. 773

No. of Extractor	Each	Diam. at small end, in.	Diam. at large end, in.	Length flutes, in.	Length over all, in.	Size drill to use
1	\$0.55	.054	.117	$\frac{3}{4}$	2	$\frac{1}{16}$
2	.60	.080	.174	$\frac{7}{8}$	$2\frac{1}{2}$	$\frac{1}{8}$
3	.65	$\frac{1}{4}$	$\frac{1}{4}$	1	$2\frac{3}{4}$	$\frac{3}{16}$
4	.75	$\frac{5}{16}$	$\frac{11}{16}$	$1\frac{1}{8}$	3	$\frac{1}{4}$
5	.85	$\frac{1}{4}$	$\frac{7}{8}$	$1\frac{1}{2}$	$3\frac{3}{8}$	$\frac{11}{16}$
6	1.00	$\frac{3}{8}$	$\frac{11}{8}$	$1\frac{3}{4}$	$3\frac{3}{4}$	$\frac{13}{16}$
7	1.35	$\frac{1}{2}$	$\frac{3}{4}$	2	$4\frac{1}{8}$	$\frac{15}{16}$
8	1.85	$\frac{3}{4}$	$1\frac{1}{8}$	$2\frac{1}{4}$	$4\frac{3}{4}$	$1\frac{1}{8}$
9	2.65	1	$1\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{5}{8}$	$1\frac{1}{4}$
10	4.00	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{2}$	5	$1\frac{3}{8}$
11	5.35	$1\frac{1}{2}$	$1\frac{7}{8}$	3	$5\frac{1}{4}$	$1\frac{1}{2}$
12	6.65	$1\frac{3}{8}$	$2\frac{1}{8}$	$3\frac{1}{2}$	$6\frac{3}{8}$	$1\frac{11}{16}$

SCREW EXTRACTOR SETS

Nos.	Contains Extractors, Nos.	Per set
62	1, 2, 3, 4, 5	\$3.00
64	1, 2, 3, 4, 5, 6	4.00
66	4, 5, 6	2.35
68	6, 7, 8, 9	6.65

TAP WRENCHES

G. T. D. ADJUSTABLE



Knurled Grip

Jaws made of solid tool steel carefully hardened and tempered.
Nos. 0 to 7 are solid steel drop forgings.

Nos. 7½ and 8 have malleable iron bodies and steel tubing handles.

Nos.	Each	Capacity tap sizes			Lgth., in.	Wt. each, lbs.
		Hand, in.	Machine screw	Pipe, in.		
0	\$2.00	1/8-1/4	0-14		7	1/4
4	3.00	1/8-7/8	0-14		9	1/2
5	3.50	3/8-1 1/8	7-14	1/8	11	3/4
6	4.00	3/8-3/4	7-14	1/8-1/4	15	1 1/2
7	5.00	1/4-1 1/8	....	1/8-3/4	19	2 3/8
7½	6.50	1/2-1 3/8	....	1/2-1	31	4 1/2
8	8.00	3/4-1 5/8	....	3/4-1 1/4	40	8

One in a box.

MORSE ADJUSTABLE



No. 1145—Sizes 0 to 1



No. 1145—Sizes 2 to F

Made of drop forged steel polished.
Sizes D, E, F, handles screw into body.

Size	Each	For taps, in.	For reamers, in.	Fitting squares, in.	Lgth., in.	Wt. each, lbs.
0	\$ 1.60	1/8-1/4	1/8-3/8	1/8-1/4	5 1/8	3/8
1	2.00	1/8-7/8	1/8-3/8	1/8-1/4	6	1/2
2	2.50	1/8-7/8	1/8-3/8	1/8-1/4	8 1/2	1 1/2
A	3.00	1/4-1 1/8	1/4-1 1/8	1/8-7/8	12 3/4	3/4
B	4.00	1/2-1 1/8	1/2-1 1/8	1/4-3/4	17 1/2	3
C	5.00	3/4-1 5/8	3/4-1 5/8	1/2-1	23	4
D	15.00	1 1/4-2 1/8	1 1/4-2 1/8	3/4-1 1/4	45 1/4	10
E	47.50	1 3/4-2 1/2	1 3/4-2 1/2	1-1 5/8	50	15
F	62.50	2 1/8-3 1/8	2 1/8-3	1 1/4-2	56	20

One in a box.

STARRETT ADJUSTABLE



For Round or Square Shank Tools

Polished steel. Will hold taps, drills and reamers.

No. 174—3 in. long, open 1/4 in.; wt. each 3 oz. Each \$0.60
Six in a box.



For Round or Square Shank Tools

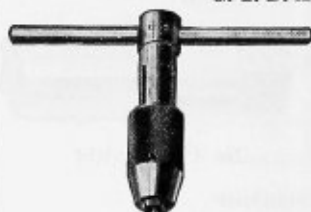
Polished steel, knurled grip, with spring adjustment.

Nos.	Each	For square taps, in.	For round taps, in.	Length, in.	Wt. each, oz.
91A	\$0.90	3/8-5/8	1/4	5 3/4	2
91B	1.80	1 1/4-1 1/4	3/8	9	8

No. 91A, three; No. 91B, one in a box.

TAP WRENCHES

G. T. D. ADJUSTABLE



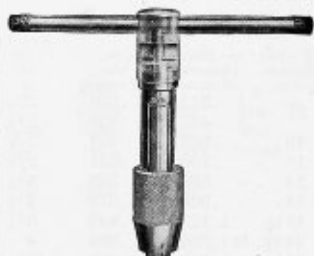
Tee Handle

Made from tough steel. Chuck jaws are hardened and tempered, knurled sleeve. No delicate springs, pins, etc. in its construction.

Nos.	Each	Capacity taps—		Length, in.	Wt. each, oz.
		Hand, in.	Machine screw		
329	\$0.75	1/8-5/8	0-14	2 1/2	3
333	1.25	3/8-1 1/2	12-14	3 5/8	8

One in a box.

G. T. D. RATCHET



Tee Handle

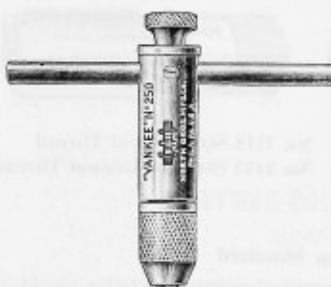
Made of tough steel. Chuck jaws hardened and tempered, knurled sleeve.

Equipped with slip handle enabling the user to rotate the wrench completely when working in close corners where a rigid handle would not have room enough to turn.

Nos.	Each	Capacity taps—		Length, in.	Wt. each, oz.
		Hand, in.	Machine screw		
338	\$1.50	1/8-5/8	0-14	4	6
339	2.50	3/8-1 1/2	12-14	4 5/8	11

One in a box.

YANKEE RATCHET



Tee Handle

Right or left hand. Chromium plated. Tool steel ratchets and pawls, hardened steel jaws. A knurled thumb-piece at top affords ready means in starting and backing out tap quickly; in end of this thumb piece is a countersunk hole to use tap wrench on lathe center for holding small drills, etc. Removable handle.

Nos.	Each	Holds taps, in.	Outside diam. chuck, in.	Length, in.	Wt. each, oz.
250	\$2.00	Up to 1/8	3/4	3 1/4	6
1251	3.25	Up to 3/8	3/4	13	14

One in a box.

MILLERS FALLS—GOODSELL PRATT



Forged steel hardened and tempered jaws.

Long knurled chuck.

Handle is held in center by a ball friction in the head of wrench.

Nos.	Each	Cap., in.	Length handle, in.	Wt. each, oz.
88	\$0.65	3/8	3 1/2	3 1/2
89	.90	3/8	4 1/2	4 1/2

One in a box.

ROUND ADJUSTABLE SPLIT DIES

MORSE, FRACTIONAL SIZES



No. 1183



No. 1184 Screw Adjusting

American National form of thread furnished unless otherwise specified.

Sizes and dimensions not listed are special.

High speed and left hand dies are special.

- $\frac{3}{8}$ in. outside diameter, $\frac{1}{4}$ in. thick.
- 1 in. outside diameter, $\frac{3}{8}$ in. thick.
- $1\frac{1}{8}$ in. outside diameter, $\frac{1}{2}$ in. thick.
- $1\frac{1}{2}$ in. outside diameter, $\frac{1}{2}$ in. thick.

— Outside diameter, each — — Number of threads to the inch —

Cutting size, in.	$\frac{3}{8}$ inch fitting stock No. 22, No. 42	1 inch fitting stock No. 23, No. 43	1 $\frac{1}{8}$ inch fitting stock No. 25, No. 45	1 $\frac{1}{2}$ inch fitting stock No. 26	N.C. (U.S.S.)	N.F. (S.A.E.)	N.S. (U.S.F.)	Whitworth Std.	British Std.	Flare
$\frac{1}{8}$	\$0.90						64	60		
$\frac{3}{16}$	.70						48	48		
$\frac{1}{4}$	.60	\$0.75					40	40		
$\frac{5}{16}$	.60	.75					32, 36	32		
$\frac{3}{8}$	.60	.75					24, 32	24		
$\frac{7}{16}$	.60	.75					24, 32	24		
$\frac{1}{2}$	.60	.75	\$1.25	\$1.25	20	28	24, 27, 32	20	26	
$\frac{5}{8}$	.60	.75	1.25	1.25	18	24	20, 27, 32	18	22	
$\frac{3}{4}$	.75	1.25	1.25	1.25	16	24	20, 27	16	20	
$\frac{7}{8}$	.75	1.25	1.25	1.25	14	20	24, 27	14	18	
$1\frac{1}{8}$		1.25	1.25	1.25	13	20	12, 24, 27	12	16	
$1\frac{1}{4}$			1.25	1.25	12	18	27	12	16	
$1\frac{1}{2}$				1.25	11	18	12, 27	11	14	

- 2 in. outside diameter, $\frac{5}{8}$ in. thick.
- $2\frac{1}{4}$ in. outside diameter, $\frac{3}{4}$ in. thick.
- $2\frac{1}{2}$ in. outside diameter, $\frac{3}{4}$ in. thick.
- 3 in. outside diameter, 1 in. thick.

— Outside diameter, each — — Number of threads to the inch —

Cutting size, in.	2 inch fitting stock No. 29	2 $\frac{1}{4}$ inch fitting stock No. 30, No. 50	2 $\frac{1}{2}$ inch fitting stock No. 31	3 inch fitting stock No. 32	N.C. (U.S.S.)	N.F. (S.A.E.)	N.S. (U.S.F.)	Whitworth Std.	British Std.	Flare
$\frac{1}{4}$	\$2.00				20	28	24, 27, 32	20	26	
$\frac{3}{8}$	2.00				18	24	20, 27, 32	18	22	
$\frac{1}{2}$	2.00				16	24	20, 27	16	20	
$\frac{5}{8}$	2.00				14	20	24, 27	14	18	
$\frac{3}{4}$	2.00	\$3.00	\$3.00		13	20	12, 24, 27	12	16	
$\frac{7}{8}$	2.00	3.00	3.00		12	18	27	12	16	
$1\frac{1}{8}$	2.00	3.00	3.00		11	18	12, 27	11	14	
$1\frac{1}{4}$	2.00	3.00	3.00				11, 16	11	14	
$1\frac{1}{2}$	2.00	3.00	3.00		10	16	12, 27	10	12	
1	2.00	3.00	3.00	\$5.00	9	14	12, 18, 27	9	11	
$1\frac{1}{8}$		3.00	3.00	5.00	8	14	12, 27	8	10	
$1\frac{1}{4}$				5.00	7	12		7	9	
$1\frac{1}{2}$				5.00	7	12		7	9	
$1\frac{3}{4}$				5.00	6	12		6	8	
$2\frac{1}{4}$				5.00	6	12		6	8	

Note—Specify List No., fractional size and outside diameter of die when ordering.

ROUND ADJUSTABLE SPLIT DIES

MORSE, MACHINE SCREW SIZES



No. 1183



No. 1184 Screw Adjusting

Sizes and dimensions not listed are special.

High speed and left hand dies are special.

- $\frac{3}{8}$ in. outside diameter, $\frac{1}{4}$ in. thick.
- $\frac{1}{2}$ in. outside diameter, $\frac{1}{4}$ in. thick.
- 1 in. outside diameter, $\frac{3}{8}$ in. thick.

*Style 1183 only.

— Outside diameter, each — — Number of threads to the inch —

Size of screw gauge	$\frac{3}{8}$ inch diameter fitting stock No. 21	$\frac{1}{2}$ inch diameter fitting stock Nos. 22 & 42	1 inch diameter fitting stock Nos. 23 & 43	N.C.	N.F.	N.S.
0	\$0.80	\$0.90			80	
1	.80	.90		64	72	56
2	.70	.80		56	64	
3	.60	.70		48	56	
4	.50	.60		40	48	32, 36
5	.50	.60		40	44	36
6	.50	.60	\$0.75	32	40	36
8	.50	.60	.75	32	36	30, 40
10	.50	.60	.75	24	32	28, 30
12	.50	.60	.75	24	28	32
14	.50	.60	.75			20, 24

Note—Specify List No., screw gauge and outside diameter when ordering.

RE-THREADING DIES

MORSE

Hexagon

Used for repair work only, for dressing over bruised or rusty threads and are held in socket ratchet or monkey wrench.

National (U.S.S.) thread furnished unless otherwise specified.

Sizes not listed special.

Left hand and high speed dies are special.

No. 1266



— Threads per inch — — Size of die —

Cutting size, in.	Each	N.C. (U.S.S.)	N.F. (S.A.E.)	N.S. (U.S.F.)	Whitworth Std.	Across flats, in.	Thickness, in.
$\frac{1}{4}$	\$0.70	20	28		20	$\frac{3}{8}$	$\frac{1}{4}$
$\frac{3}{8}$	.80	18	24		18	$\frac{1}{2}$	$\frac{3}{8}$
$\frac{1}{2}$	.90	16	24		16	$\frac{3}{4}$	$\frac{1}{2}$
$\frac{3}{4}$	1.00	14	20		14	$\frac{7}{8}$	$\frac{3}{4}$
$\frac{1}{2}$	1.10	13	20		12	$1\frac{1}{8}$	$\frac{1}{2}$
$\frac{7}{8}$	1.20	12	18		12	$1\frac{1}{4}$	$\frac{1}{2}$
$1\frac{1}{8}$	1.40	11	18		11	$1\frac{1}{2}$	$\frac{3}{4}$
$1\frac{1}{4}$	1.60			11, 16	11	$1\frac{3}{4}$	$\frac{3}{4}$
$1\frac{1}{2}$	1.80	10	16		10	$1\frac{7}{8}$	$\frac{3}{4}$
$1\frac{3}{4}$	2.10	9	14	18	9	$2\frac{1}{8}$	$\frac{1}{2}$
1	2.40	8	14		8	$2\frac{1}{4}$	1
$1\frac{1}{8}$	2.80	7	12		7	2	1
$1\frac{1}{4}$	3.20	7	12		7	$2\frac{3}{8}$	1
$1\frac{3}{4}$	3.60	6	12		6	$2\frac{7}{8}$	1
$2\frac{1}{4}$	4.00	6	12		6	$3\frac{1}{8}$	1

SOLID BOLT DIES

MORSE



No. 1165

National coarse (U.S.S.) threads furnished unless otherwise specified.

Sizes and dimensions not listed are special.

High speed and left hand dies are special.

Cutting size, in.	Each	Threads per inch		Outside dimensions	
		N.C. (U.S.S.)	N.S. (U.S.F.)	Size of square, in.	Thickness, in.
1/4	\$1.80	20	...	2 1/2	1 1/2
3/8	1.80	18	...	2 1/2	1 1/2
1/2	1.80	16	...	2 1/2	1 1/2
3/4	1.80	14	...	2 1/2	1 1/2
1	1.80	13	...	2 1/2	1 1/2
1 1/8	1.90	12	...	2 1/2	1 1/2
1 1/4	2.00	11	...	2 1/2	1 1/2
1 1/2	2.20	10	...	2 1/2	1 1/2
1 3/4	2.40	9	...	2 1/2	1 1/2
2	2.70	8	...	2 1/2	1 1/2
2 1/8	3.00	7	...	2 1/2	1 1/2
2 1/4	3.30	7	...	2 1/2	1 1/2
2 1/2	3.60	6	...	2 1/2	1 1/2
2 3/4	3.90	6	...	3	1
3	4.20	...	5 1/2	3	1
3 1/8	5.40	5	...	3	1 1/4
3 1/4	6.50	...	5	3 1/2	1 1/2
3 1/2	7.50	4 1/2	...	3 3/4	2

ROUND ADJUSTABLE SPLIT DIES

MORSE PIPE



No. 1183



No. 1184 Screw Adjusting.

The diameter of thread at small end is such that American National Standard pipe plug gauge will screw flush with face of die. Straight dies furnished when specified.

Sizes not listed, high speed and left hand are special.

1 in. outside diameter, 3/8 in. thick.
1 1/2 in. outside diameter, 1/2 in. thick.
2 in. outside diameter, 5/8 in. thick.

For Iron Pipe

Cutting size pipe, in.	Outside diameter, each			No. of threads to the in.
	1 inch fitting stocks Nos. 23 and 43	1 1/2 inch fitting stock No. 26	2 inch fitting stock No. 29	
1/4	\$0.75	\$1.25	...	27
3/8	...	1.25	\$2.00	18
1/2	...	1.50	2.00	18
3/4	2.00	14
1	14
1 1/8	11 1/2

For Brass Pipe

Cutting size pipe, in.	Outside diameter, each			No. of threads to the in.
	1 inch diameter 3/8 inch thick Fitting stocks Nos. 23 and 43	1 1/2 inch diameter 1/2 inch thick Fitting stocks Nos. 25 and 45	2 inch diameter 5/8 inch thick Fitting stock No. 26	
1/4	\$0.75	...	...	27
3/8	.75	...	...	27
1/2	.75	...	...	27
3/4	.75	...	...	27
1	.75	...	...	27
1 1/8	...	\$1.50	...	27
1 1/4	...	...	\$1.75	27

Note—When ordering specify for kind of pipe, size and list No.

SOLID PIPE DIES

MORSE

No. 1170

Standard Taper 3/4 Inch to the Foot

Regularly furnished in American Standard (N.P.T.) right hand taper thread.

Sizes not listed and left hand dies are special.



Cutting size pipe, in.	Size of Square—Thickness—Each				
	2" square 1/2" thick	2 1/2" square 3/4" thick	3" square 1" thick	4" square 1 1/4" thick	5" square 1 1/2" thick
1/4	*\$1.80	*\$1.80	...	...	...
3/8	1.90	* 1.90	...	...	...
1/2	2.10	* 2.10	...	...	...
3/4	2.40	* 2.40	*\$3.10	...	...
1	...	* 3.00	* 3.45	...	...
1 1/4	...	3.60	3.75	*\$5.00	...
1 1/2	...	...	5.40	* 6.50	...
2	...	...	...	* 7.50	...
2 1/2	...	...	...	8.50	...
3	...	...	...	...	\$12.50

*Items are thick enough to cut American Standard (N.P.T.)

SQUARE PIPE DIES

Q AND E

With inserted tool steel chasers.



Nos.	Each	Size of die, in.	Cutting sizes, in.
0-SP1	\$1.40	2x2	1/8 to 3/4
1-SP1	1.60	2 1/2 x 2 1/2	3/8 to 1
1 1/2-SP1	2.00	3x3	1/2 to 1 1/2
2-SP1	2.50	4x4	1 1/2 to 2

Note—State size when ordering.

DIE STOCKS

MORSE



For Nos. 1183, 1184 Round Split Dies

Handles on Nos. 28, 29, 30, 31 and 32 screw into the body instead of being solid.

No. 1180 Without Guides

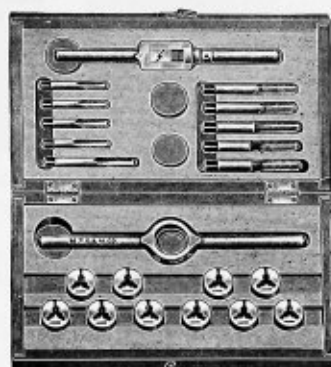
No. 1182 With Guides

Size of die stock, No.	Each without dies or guides	Whole Length of die stock, in.	Holding round dies		Limits of cutting size—Machine screw gauge	
			Outside diam., in.	Thickness, in.	Fractional	Machine
21	\$0.40	...	5	5/8	1/8 to 1/4	0 to 14
22	.50	42	7 3/8	1 1/8	1/8 to 1/4	0 to 18
23	1.00	43	2.00	1	1/8 to 1/4	0 to 18
25	1.25	45	3.00	1 1/8	1/8 to 1/4	4 to 18
26	1.25	...	1 1/2	1 1/2	1/8 to 1/4	...
29	1.50	...	22	2	1/8 to 1/4	...
30	1.75	50	4.50	2 1/4	1/8 to 1/4	...
31	1.75	...	30	2 1/2	1/8 to 1/4	...
32	2.25	...	42	3	1/8 to 1 1/2	...

Guides for No. 42 stock, each \$0.15. No. 43 and No. 45 each \$0.30. Guides for No. 48 stock each \$0.40. No. 50 each \$0.50.

SCREW PLATES

MORSE ROUND ADJUSTABLE SPLIT DIES



No. 1265—Machine Screw and Fractional Sizes

Each set consists of one tap and die of each size listed, one die stock.

Sets Nos. 35 to 59 tap wrench are furnished.

Set Nos.	35	36	37	39	51	52	54	59
Cutting sizes and threads per inch	2-56	3-48	4-36	5-36	6-32	8-32	10-24	12-24
Dia. of dies, in.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{8}$
Die stock Nos.	21	21	21	21	22	22	22	22
and length, in.	5	5	5	5	7 $\frac{3}{8}$	7 $\frac{3}{8}$	7 $\frac{3}{8}$	7 $\frac{3}{8}$
Tap wrench Nos.	0	0	0	0	0	1	1	0
and length, in.	5 $\frac{1}{8}$	5 $\frac{1}{8}$	5 $\frac{1}{8}$	5 $\frac{1}{8}$	5 $\frac{1}{8}$	6	6	5 $\frac{1}{8}$
Per set	\$9.00	8.00	7.25	12.75	9.50	11.00	12.50	10.75

Fractional Sizes Only

No tap wrenches furnished with these sets.

Set Nos.	69	79	80	82	102	114
Cutting sizes and threads per inch	$\frac{3}{8}$ -24	$\frac{1}{4}$ -20	$\frac{1}{4}$ -20	$\frac{1}{4}$ -28	$\frac{1}{4}$ -20	$\frac{1}{4}$ -20
Diam. of dies, in.	1	1 $\frac{1}{8}$	1 $\frac{1}{8}$	1 $\frac{1}{8}$	2	2 $\frac{1}{2}$
Die stock Nos.	23	25	25	25	29	31
and length, in.	10 $\frac{1}{4}$	12 $\frac{1}{8}$	12 $\frac{1}{8}$	12 $\frac{1}{8}$	22	30
Per set	\$10.75	14.75	13.00	14.75	22.25	31.75

SCREW PLATES

G.T.D. LITTLE GIANT



Sectional View of Die and Collet.



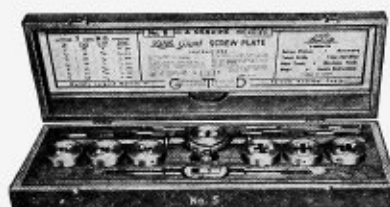
Two-Piece Adjustable Die. Note the Beveled Edges.

Details of Little Giant Screw Plates

Dies are made in two pieces, each piece having two cutting edges. The two pieces can be quickly removed from the collet and the cutting edges sharpened on a thin emery wheel.

The collet consists of a cap with slot beveled to the same angle as the edges of the die and a screw guide. A small screw at the end of each slot allows adjustment to exact size.

After the die is placed in the cap, the screw guide wedges it tight. Thus the die is held in a positive three-angle grip, and the whole (die and collet) is practically as rigid as a solid die.



Single Stock N.C. (U.S.S.) Threads

N.F., B.S.F., or Whitworth Standard threads furnished when ordered at regular prices.

Set No. 1 contains a bit brace shank guide.

Set Nos.	1	2	5	5 $\frac{1}{2}$	7
Cutting size inch and threads	$\frac{1}{4}$ -20	$\frac{1}{4}$ -20	$\frac{1}{4}$ -20	$\frac{1}{4}$ -20	$\frac{1}{4}$ -20
Collets, diam., in.	2	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$	2 $\frac{3}{4}$
Stocks, length, in.	14 $\frac{1}{2}$	23	23	23	26
Tap wrenches, Nos.	5	6	6	6	5, 7
Weight per set, lbs.	9	17	20	22	27
Per set	\$18.50	22.75	27.50	30.75	42.00



Single Stock Automobile N.F. (S.A.E.) Threads

Also used for other fine thread purposes with N.F. threads No. 31 with bit brace shank guide.

Set Nos.	31	35	37
Cutting size inch and threads	$\frac{1}{4}$ -28	$\frac{1}{4}$ -28	$\frac{1}{4}$ -28
Collets diameter, in.	2	2 $\frac{3}{4}$	2 $\frac{3}{4}$
Stock length, in.	14 $\frac{1}{2}$	23	26
Tap wrench, Nos.	5	6	5, 7
Weight per set, lbs.	8	20	27
Per set	\$18.50	27.50	42.00

SCREW PLATES

G. T. D. LITTLE GIANT



Automobile
N. C. (U. S. S.)
and
N. F. (S. A. E.)

Whitworth
threads substituted
at regular
prices.

Set Nos.	310	311	312
Thread std.	N.C.	N.F.	N.C.
Cutting size inch and threads	1/4-20	1/4-28	1/4-20
	5/16-18	5/16-24	5/16-18
	3/8-16	3/8-24	3/8-16
	1/2-14	1/2-20	1/2-14
	1/2-13	1/2-20	1/2-13

Collets dia., in.	2	2, 2 1/2	2, 2 1/2
Stock lgth., in.	14 1/2	14 1/2, 23	14 1/2, 29
Tap wr'ch, Nos.	5	6	5, 7
Wt. per set, lbs.	14	31	45
Per set	\$29.25	56.00	79.00

G. T. D. "O.K." JR. REGULAR



Round Adjustable
Split Dies
Machine
Screw Sizes

Same high quality
as other G. T. D. pro-
ducts.

One hand tap and
one die for each cut-
ting size.

Set Nos.	B5	B6	B7	B10
Cutting size inch and threads	4-36	4-36	4-36	4-40
	6-32	6-32	6-32	4-48
	8-32	8-32	8-32	6-40
	10-24	10-24	10-24	8-36
	12-24	12-24	10-32	10-24
	.....	12-24	12-24	10-32
	.....	.....	12-24	12-24
	.....	1/4-20	1/4-20	12-28

Dies diam., in.	1 1/2	1 1/2	1 1/2	1 1/2
Stock, Nos.	751	751	751	751
Length, in.	6 1/4	6 1/4	6 1/4	6 1/4
Tap wrenches, Nos.	3	3	3	3
Wt. per set, lbs.	1 3/4	1 3/4	2	2 3/4
Per set	\$4.00	4.50	5.00	6.50

SCREW PLATES

G. T. D. "O.K." JR. REGULAR



Round Adjustable
Split Dies
Small
Fractional Sizes

For small work of
all kinds.

National form
threads furnished un-
less otherwise ord-
ered. Whitworth
Standard threads
furnished at regular
prices.

Seven each taps and dies furnished as follows, 1/8-40, 1/8-24, 1/4-20, 1/8-18, 3/8-16, 1/2-14 and 1/2-13.

No. 752 stock, 9 in. long, No. 3 tap wrench.

Set No. C7—Weight per set 2 1/4 lbs. Per set \$6.50

G. T. D. "O.K." JR. AUTOMOBILE



Round Adjustable
Split Dies
N.C., N.F. and Pipe
Threads

Combination set
designed for general
repair work.

Whitworth threads
substituted for N. C.
form of threads at
regular prices when
specified.

Eleven each tap
and dies furnished
as follows:

N. C. threads—1/4-20, 1/8-18, 3/8-16, 1/2-14, 1/2-13.

N. F. threads—1/4-28, 1/8-24, 3/8-24, 1/2-20, 1/2-20.

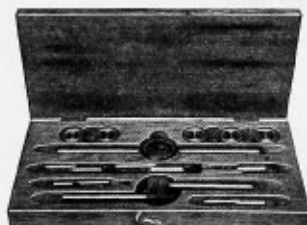
Pipe thread—1/4 in.

No. 752 stock 9 in. long, bit brace, die holder.

No. 3 tap wrench, one small screw driver.

Set No. 3100—Weight per set 4 lbs. Per set \$7.50

STAR



Solid Round Dies
N. C. or N. F. Threads

All taps and dies made of
high grade steel. Carefully
hardened and tempered. When
used correctly with good grade
of oil (lard oil) they will cut
a clean thread and give excel-
lent service.

Set Nos.	2	2A
Threads	N.C.	N.F.
Cutting sizes inch and threads.	1/4-20	1/4-28
	1/8-18	1/8-24
	3/8-16	3/8-24
	1/2-14	1/2-20
	1/2-13	1/2-20
Die stock, in.	8	8
Tap wrench, in.	7	7
Wt. per set, lbs.	4 3/4	4 3/4
Per set	\$2.00	2.00

PARTS FOR SCREW PLATES LITTLE GIANT COLLETS



Cap.



Guide.

The Cap and Guide Form the Complete Collet

Nos.	Cap, each	Guide, each	Complete, each	Diameter of collet, in.	Cutting size of dies, in.
1	\$0.50	\$0.30	\$0.80	2	$\frac{7}{16}$ - $\frac{1}{2}$
5	.80	.50	1.30	2 $\frac{3}{4}$	$\frac{7}{16}$ - 1
20	1.50	.75	2.25	4	$\frac{9}{16}$ - 1 $\frac{1}{4}$
25	2.00	1.00	3.00	4 $\frac{1}{2}$	1 $\frac{1}{8}$ - 1 $\frac{1}{2}$

LITTLE GIANT DIES ONLY



Dies are beveled on both sides to permit reversing the die so that work may be threaded either through the guide or from the face. Determined by the character of the work.

For 2, 2 $\frac{3}{4}$, 4 and 4 $\frac{1}{2}$ inch Collets

Size, in.	Per pair	U.S.S. threads per in.	S.A.E. threads per in.	Size, in.	Per pair	U.S.S. threads per in.	S.A.E. threads per in.
$\frac{1}{4}$	\$1.00	20	28	$\frac{3}{4}$	\$2.00	10	16
$\frac{1}{2}$	1.00	18	24	$\frac{7}{8}$	2.75	9	14
$\frac{3}{8}$	1.25	16	24	1	2.75	8	14
$\frac{1}{2}$	1.25	14	20	1 $\frac{1}{8}$	4.00	7	12
$\frac{3}{4}$	1.50	13	20	1 $\frac{1}{4}$	4.00	7	12
$\frac{1}{2}$	1.50	12	18	1 $\frac{3}{8}$	5.00	6	12
$\frac{3}{4}$	1.75	11	18	1 $\frac{1}{2}$	5.00	6	12

PARTS FOR A1 AND AA4 SCREW PLATES

No. of Collet	A-1
Diameter of collet, in.	1 $\frac{1}{4}$
For fractional sizes, in.	$\frac{1}{16}$ - $\frac{1}{2}$
For machine screw sizes, in.	0-16
Cap	each \$0.35
Guide	each .20
Complete	each .55

Dies Only

For 1 $\frac{1}{4}$ inch Collet

Fractional size, in.	Per pair	Machine screw size, in.	Thrds. per in.	Machine screw size, in.	Per pair	Thrds. per in.
$\frac{1}{8}$	\$0.75	40	8	6	\$0.75	32
$\frac{3}{16}$	.75	36	10	8	.75	32
$\frac{1}{4}$	.75	24	10	10	.75	32
$\frac{5}{16}$	.75	24	12	12	.75	24
$\frac{3}{8}$	.75	20	14	14	.75	20
$\frac{1}{2}$	.75	4	36			

DIE STOCKS LITTLE GIANT



Knurled Steel Tube,
Polished Handles

Body mottled and polished finish.

Nos.	Each	Collet, in.	Lgth., in.	Nos.	Each	Collet, in.	Lgth., in.
A1	\$1.25	1 $\frac{1}{4}$	7 $\frac{1}{2}$	9	\$3.50	2 $\frac{3}{4}$	29
1	2.50	2	14 $\frac{1}{2}$	20	6.00	4	41
5	3.50	2 $\frac{3}{4}$	23	25	8.00	4 $\frac{1}{2}$	52
7	3.50	2 $\frac{3}{4}$	26				

PIPE STOCKS AND DIES OR THREADING DEVICES TOLEDO



Ratchet

Consists of ratchet handle and die heads complete which can be changed instantly. Will thread pipe in corners. Set contains five die heads $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ in., and one ratchet handle 14 in. long.

Per set
No. 00—Capacity $\frac{1}{8}$ to $\frac{3}{4}$ in.; shipping wt. per set 9 $\frac{3}{4}$ lbs. \$24.70

EXTRA DIE HEADS WITH DIES FOR No. 00 SET

Size, in.	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Wt. each, lbs.	2	2	2	2	2
Each	\$3.90	3.90	3.90	4.50	4.50



Adjustable

Embodies receding die feature, also cuts under and over size. One set of dies for $\frac{1}{8}$ in. pipe. Second set for $\frac{1}{4}$ and $\frac{3}{8}$ in. pipe and third set for $\frac{1}{2}$ and $\frac{3}{4}$ in. pipe. Set contains body, two handles, dies and bushings.

Per set
No. 0—Capacity $\frac{1}{8}$ to $\frac{3}{4}$ in.; shipping wt. per set 9 $\frac{1}{2}$ lbs. \$20.80

EXTRA DIES FOR No. 0 SET

Size, in.	$\frac{1}{8}$	$\frac{1}{4}$ x $\frac{3}{8}$	$\frac{1}{2}$ x $\frac{3}{4}$
Wt. per set, oz.	5	4	4
Per set	\$2.76	2.76	2.76



Adjustable

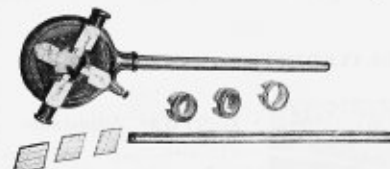
Embodies receding die features, instantly adjusted to cut under and over size. Set contains body, two handles. Set of 1 to 2 in. dies and bushings.

Per set
No. 1—Capacity 1 to 2 in.; shipping wt. per set 20 lbs. \$18.00

EXTRA DIES FOR No. 1 SET

Size, in.	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
Wt. per set, oz.	7	6	6	5
Per set	\$1.50	1.50	1.50	2.50

Adjustable Ratchet



Made with ratchet, for threading pipe in trenches, between rafters or any restricted place. Also embodies receding die feature.

Will cut under and over sizes also. Set contains body, two handles, set of 1 to 2 in. dies and bushings.

Per set
No. 1A—Capacity 1 to 2 in.; shipping wt. per set 24 lbs. \$22.50

EXTRA DIES FOR No. 1A SET

Size, in.	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
Wt. per set, oz.	7	6	6	5
Per set	\$1.50	1.50	1.50	2.50

All above, one set in a box.

PIPE STOCK AND DIES OR THREADING DEVICES

TOLEDO



Geared Adjustable

Embodies receding die principle, a very practical and easily operated device easily placed into position on pipe. Cuts very rapidly.

Set contains body, set of 2½ to 4 in. dies and bushings and set screw wrench.

No. 2—Capacity 2½ to 4 in.; shipping wt. per set 94 lbs. . . \$100.00

EXTRA DIES FOR No. 2 SET

Size, in.	2½	3	3½	4
Wt. per set, oz.	34	32	28	26
Per set	\$8.00	8.00	8.00	8.00

Three Way



Made with three die heads in body no changing of dies necessary.

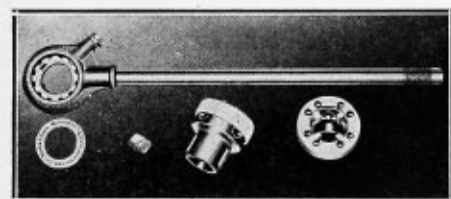
Set contains body, three sets of dies and handles.

Nos.	Per set	Capacity, in.	Shipping wt. per set, lbs.
30	\$12.00	¾-½-¾	5½
31	13.50	½-¾-1	8½

EXTRA DIES FOR Nos. 30 AND 31 SETS

Size, in.	¾	½	¾	1
Wt. per set, oz.	2	2	2	4
Per set	\$2.60	2.60	2.60	3.26

BEAVER



Ratchet

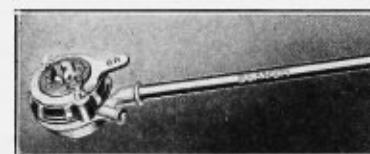
Fully enclosed mechanism, ratchet will not slip. Dies can be inverted for threading close to work.

Nos.	Per set	Capacity, in.	Shipping wt. per set, lbs.
3A	\$36.00	½-1	12
3B	31.50	¾-1	11

EXTRA DIE HEADS FOR Nos. 3A AND 3B SETS

Size, in.	¾	¾	¾	¾	1
Wt. per set, oz.	12	12	12	16	20
Per set	\$4.50	4.50	4.50	5.26	6.00

BEAVERETTE



Four Way Adjustable

Threads pipe without changing dies or bushings. Dies are set into position by a cam. Cuts under and oversizes.

No. 6—Capacity ¼ to ¾ in.; shipping wt. per set 12 lbs. . . \$24.00

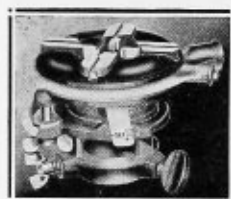
EXTRA DIES FOR No. 6 SET

Size, in.	¼x¾
Wt. per set, oz.	8
Per set	\$4.50

All above, one set in a box.

PIPE STOCK AND DIES OR THREADING DEVICES

BEAVER



Medium "One-Piece" Ratchet Adjustable

Cuts undersize and oversize threads. Dies on top for easy oiling and chip clearance cuts uniform threads and nipples; one set dies threads all sizes easily set.

No. 12R—Capacity, 1 to 2 in.; shipping wt. per set 23 lbs. . . \$30.00

EXTRA DIES FOR No. 12R SET

Capacity—1 to 2 in. . . Per set \$3.00

BEAVER



Heavy Duty "One-Piece" Ratchet Adjustable

A heavy duty one piece tool. Will cut under and over size also drip threads and close nipples.

No. 26—Capacity 1 to 2 in., shipping wt. 34 lbs. . . \$38.50

EXTRA DIES FOR No. 26 SET

Capacity—1 to 2 in. . . Per set \$4.68

REED SOLID DIES



Complete with Q and E patented dies which start threading with forcing stock on pipe.

Nos.	Per set	Dies only, each	Extra guides, each	Threads pipe, in.	Dies to a stock	Size block, in.	Wt. set, lbs.
0SP	\$8.00	\$1.40	\$0.30	¼-½	4	2x2	6
1SP	10.50	1.60	.40	¾-1	5	2½x2½	12½
2SP	14.50	2.50	.75	1¼-2	3	4x4	24

ARMSTRONG



Adjustable

Dies are right hand. Standard thread having a double taper and need no forcing to start cutting.

Nos.	Per set	Extra dies	Extra bushings	Threads pipe, in.	Wt. per set, lbs.
1A	\$ 9.00	\$1.60	\$0.30	¼ to ½	4¾
2A	12.00	2.00	.40	¾ to 1	12½
2B	14.00	2.00	.40	¾ to 1	13½
2½A	16.50	3.50	.60	¾ to 1¼	16
3A	18.00	3.50	.75	1¼ to 2	28½
3B	21.00	3.50	.75	1 to 2	32½
3C	24.00	3.50	.75	¾ to 2	36½

ARMSTRONG ADJUSTABLE BOLT DIES

To Fit Standard Pipe Stocks

Furnished N. F. (U.S.S.) or N.S. (S.A.E.) threads.

Nos.	Per pair	Size threads, in.	Fits pipe stock, in.
B1A	\$1.50	¼, ⅜, ½, ⅝	1
B1B	1.75	½, ⅝, ¾, ⅞	1
B2A	2.00	¾, ⅞, 1, 1¼	2
B2C	2.25	1, 1¼, 1½, 1¾	2

Left hand pipe and bolt dies can be furnished for Armstrong sets at double price of right hand listed above.

TOOL HOLDERS **ARMSTRONG STRAIGHT SHANK**



With High Speed Steel Cutters

Complete with drop forged wrench and one high speed steel cutter, ground to shape.

Nos.	Complete, Each	Extra Cutters, Each	Size of Holder, Inches	Size Cutter, Sq. in.	Wt. Each, Lbs.
00-S	\$2.70	\$0.15	$\frac{1}{8}$ x $\frac{3}{4}$ x $4\frac{1}{2}$	$\frac{1}{8}$	$\frac{1}{2}$
0-S	2.85	.20	$\frac{3}{8}$ x $\frac{7}{8}$ x 5	$\frac{1}{4}$	$\frac{3}{4}$
1-S	3.25	.35	$\frac{1}{2}$ x $1\frac{1}{8}$ x 6	$\frac{3}{8}$	$1\frac{1}{2}$
2-S	4.00	.55	$\frac{5}{8}$ x $1\frac{3}{8}$ x 7	$\frac{1}{2}$	$2\frac{1}{4}$
3-S	5.40	.90	$\frac{3}{4}$ x $1\frac{5}{8}$ x 8	$\frac{3}{4}$	$3\frac{1}{2}$
4-S	6.90	1.30	$\frac{7}{8}$ x $1\frac{3}{4}$ x 9	$1\frac{1}{2}$	$4\frac{3}{4}$
5-S	9.75	2.35	1 x 2 x 11	$\frac{5}{8}$	$7\frac{1}{2}$
6-S	13.50	3.85	$1\frac{1}{4}$ x $2\frac{1}{4}$ x 13	$\frac{3}{4}$	12
7-S	22.50	5.85	$1\frac{1}{2}$ x $2\frac{1}{2}$ x 16	$\frac{7}{8}$	19
750-S	33.00	8.35	$1\frac{5}{8}$ x $2\frac{3}{4}$ x 18	1	26
800-S	42.75	11.35	$1\frac{3}{4}$ x 3 x 20	$1\frac{1}{8}$	32

ARMSTRONG RIGHT HAND OFFSET



With High Speed Steel Cutters

Complete with drop forged wrench and one high speed steel cutter, ground to shape.

Nos.	Complete, Each	Extra Cutters, Each	Size of Holder, Inches	Size Cutter, Sq. in.	Wt. Each, Lbs.
00-R	\$2.70	\$0.15	$\frac{1}{8}$ x $\frac{3}{4}$ x $4\frac{1}{2}$	$\frac{1}{8}$	$\frac{1}{2}$
0-R	2.85	.20	$\frac{3}{8}$ x $\frac{7}{8}$ x 5	$\frac{1}{4}$	$\frac{3}{4}$
1-R	3.25	.35	$\frac{1}{2}$ x $1\frac{1}{8}$ x 6	$\frac{3}{8}$	$1\frac{1}{2}$
2-R	4.00	.55	$\frac{5}{8}$ x $1\frac{3}{8}$ x 7	$\frac{1}{2}$	$2\frac{1}{4}$
3-R	5.40	.90	$\frac{3}{4}$ x $1\frac{5}{8}$ x 8	$\frac{3}{4}$	$3\frac{1}{2}$
4-R	6.90	1.30	$\frac{7}{8}$ x $1\frac{3}{4}$ x 9	$1\frac{1}{2}$	5
5-R	9.75	2.35	1 x 2 x 11	$\frac{5}{8}$	8
6-R	13.50	3.85	$1\frac{1}{4}$ x $2\frac{1}{4}$ x 13	$\frac{3}{4}$	13
7-R	22.50	5.85	$1\frac{1}{2}$ x $2\frac{1}{2}$ x 16	$\frac{7}{8}$	21
750-R	33.00	8.35	$1\frac{5}{8}$ x $2\frac{3}{4}$ x 18	1	30
800-R	42.75	11.35	$1\frac{3}{4}$ x 3 x 20	$1\frac{1}{8}$	35

ARMSTRONG LEFT HAND OFFSET



With High Speed Steel Cutters, Left Hand Offset Shank

Complete with drop forged wrench and one high speed steel cutter, ground to shape.

Nos.	Complete, Each	Extra Cutters, Each	Size of Holder, Inches	Size Cutter, Sq. in.	Wt. Each, Lbs.
00-L	\$2.70	\$0.15	$\frac{1}{8}$ x $\frac{3}{4}$ x $4\frac{1}{2}$	$\frac{1}{8}$	$\frac{1}{2}$
0-L	2.85	.20	$\frac{3}{8}$ x $\frac{7}{8}$ x 5	$\frac{1}{4}$	$\frac{3}{4}$
1-L	3.25	.35	$\frac{1}{2}$ x $1\frac{1}{8}$ x 6	$\frac{3}{8}$	$1\frac{1}{2}$
2-L	4.00	.55	$\frac{5}{8}$ x $1\frac{3}{8}$ x 7	$\frac{1}{2}$	$2\frac{1}{4}$
3-L	5.40	.90	$\frac{3}{4}$ x $1\frac{5}{8}$ x 8	$\frac{3}{4}$	$3\frac{1}{2}$
4-L	6.90	1.30	$\frac{7}{8}$ x $1\frac{3}{4}$ x 9	$1\frac{1}{2}$	5
5-L	9.75	2.35	1 x 2 x 11	$\frac{5}{8}$	8
6-L	13.50	3.85	$1\frac{1}{4}$ x $2\frac{1}{4}$ x 13	$\frac{3}{4}$	13
7-L	22.50	5.85	$1\frac{1}{2}$ x $2\frac{1}{2}$ x 16	$\frac{7}{8}$	21
750-L	33.00	8.35	$1\frac{5}{8}$ x $2\frac{3}{4}$ x 18	1	30
800-L	42.75	11.35	$1\frac{3}{4}$ x 3 x 20	$1\frac{1}{8}$	35

All above, one in a box.

CUTTING-OFF TOOLS **ARMSTRONG**



Straight Shank

Complete with drop forged wrench and high speed steel cutter, ground to shape.

Nos.	Complete, Each	Extra Blades, Each	Size of Holder, inches	Size of Blades, inches	Wt. Each, Lbs.
19	\$2.85	\$0.60	$\frac{1}{8}$ x $\frac{3}{4}$ x $4\frac{1}{2}$	$\frac{1}{8}$ x $\frac{1}{2}$	$\frac{1}{2}$
20	3.00	.65	$\frac{3}{8}$ x $\frac{7}{8}$ x 5	$\frac{1}{4}$ x $\frac{3}{8}$	$\frac{3}{4}$
21	3.60	.90	$\frac{1}{2}$ x $1\frac{1}{8}$ x 6	$\frac{1}{2}$ x $\frac{3}{4}$	$1\frac{1}{4}$
22	4.50	1.30	$\frac{5}{8}$ x $1\frac{3}{8}$ x 7	$\frac{3}{8}$ x $\frac{7}{8}$	$2\frac{1}{4}$
23	6.00	2.15	$\frac{3}{4}$ x $1\frac{5}{8}$ x 8	$\frac{7}{8}$ x 1	$3\frac{1}{4}$
24	7.50	2.90	$\frac{7}{8}$ x $1\frac{3}{4}$ x 9	$\frac{7}{8}$ x $1\frac{1}{8}$	$4\frac{1}{2}$
25	9.75	4.00	1 x 2 x 10	$\frac{1}{4}$ x $1\frac{1}{4}$	$6\frac{1}{4}$
26	11.65	4.65	$1\frac{1}{4}$ x $2\frac{1}{4}$ x 11	$\frac{1}{4}$ x $1\frac{3}{8}$	9



Right Hand Offset Shank

Complete with drop forged wrench and high speed steel cutter, ground to shape.

Nos.	Complete, Each	Extra Blades, Each	Size of Holder, inches	Size of Blades, inches	Wt. Each, Lbs.
29-R	\$2.85	\$0.60	$\frac{1}{8}$ x $\frac{3}{4}$	$\frac{1}{8}$ x $\frac{1}{2}$	$\frac{5}{8}$
30-R	3.00	.65	$\frac{3}{8}$ x $\frac{7}{8}$	$\frac{1}{4}$ x $\frac{3}{8}$	$\frac{3}{4}$
31-R	3.60	.90	$\frac{1}{2}$ x $1\frac{1}{8}$	$\frac{1}{2}$ x $\frac{3}{4}$	$1\frac{1}{2}$
32-R	4.50	1.30	$\frac{5}{8}$ x $1\frac{3}{8}$	$\frac{3}{8}$ x $\frac{7}{8}$	$2\frac{1}{4}$
33-R	6.00	2.15	$\frac{3}{4}$ x $1\frac{5}{8}$	$\frac{7}{8}$ x 1	$3\frac{1}{2}$
34-R	7.50	2.90	$\frac{7}{8}$ x $1\frac{3}{4}$	$\frac{7}{8}$ x $1\frac{1}{8}$	$4\frac{3}{4}$
35-R	9.75	4.00	1 x 2	$\frac{1}{4}$ x $1\frac{1}{4}$	$6\frac{1}{4}$
36-R	11.65	4.65	$1\frac{1}{4}$ x $2\frac{1}{4}$	$\frac{1}{4}$ x $1\frac{3}{8}$	9



Left Hand Offset Shank

Complete with drop forged wrench and high speed steel cutter, ground to shape.

Nos.	Complete, Each	Extra Blades, Each	Size of Holder, inches	Size of Blades, inches	Wt. Each, Lbs.
29-L	\$2.85	\$0.60	$\frac{1}{8}$ x $\frac{3}{4}$	$\frac{1}{8}$ x $\frac{1}{2}$	$\frac{5}{8}$
30-L	3.00	.65	$\frac{3}{8}$ x $\frac{7}{8}$	$\frac{1}{4}$ x $\frac{3}{8}$	$\frac{3}{4}$
31-L	3.60	.90	$\frac{1}{2}$ x $1\frac{1}{8}$	$\frac{1}{2}$ x $\frac{3}{4}$	$1\frac{1}{2}$
32-L	4.50	1.30	$\frac{5}{8}$ x $1\frac{3}{8}$	$\frac{3}{8}$ x $\frac{7}{8}$	$2\frac{1}{4}$
33-L	6.00	2.15	$\frac{3}{4}$ x $1\frac{5}{8}$	$\frac{7}{8}$ x 1	$3\frac{1}{2}$
34-L	7.50	2.90	$\frac{7}{8}$ x $1\frac{3}{4}$	$\frac{7}{8}$ x $1\frac{1}{8}$	$4\frac{3}{4}$
35-L	9.75	4.00	1 x 2	$\frac{1}{4}$ x $1\frac{1}{4}$	$6\frac{1}{4}$
36-L	11.65	4.65	$1\frac{1}{4}$ x $2\frac{1}{4}$	$\frac{1}{4}$ x $1\frac{3}{8}$	9

BORING TOOLS **ARMSTRONG**



Reversible

Complete with holder and bar with straight and 45° end caps, two high speed cutters, ground for boring and double head wrench.

Nos.	Complete, Each	Extra Cutters, Each	Size Shank, Inches	Diam. Bar, Inches	Size Cutter, Sq. in.	Wt. Each, Lbs.
00B	\$4.90	\$0.10	$\frac{1}{8}$ x $\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{8}$	$1\frac{1}{2}$
8	4.90	.10	$\frac{3}{8}$ x $\frac{7}{8}$	$\frac{1}{2}$	$\frac{1}{8}$	$1\frac{3}{4}$
9	5.80	.18	$\frac{1}{2}$ x $1\frac{1}{8}$	$\frac{3}{4}$	$\frac{1}{4}$	$3\frac{3}{4}$
10	7.65	.30	$\frac{5}{8}$ x $1\frac{3}{8}$	$\frac{7}{8}$	$\frac{3}{8}$	$6\frac{1}{2}$
11	10.85	.50	$\frac{3}{4}$ x $1\frac{5}{8}$	$1\frac{1}{8}$	$\frac{3}{4}$	11
12	16.00	.75	$\frac{7}{8}$ x $1\frac{3}{4}$	$1\frac{1}{8}$	$\frac{7}{8}$	17
13	22.50	1.00	1 x 2	$1\frac{1}{2}$	$\frac{1}{2}$	25

All above, one in a box.

TOOL HOLDER BITS

REX "AA"

Square



These bits are produced under such carefully controlled processing and possess such striking uniformity that maximum production at less cost results in its use.

High speed steel, hardened, ready for use.

These bits fit securely and can be made rigid in any of the standard makes of tool holders.

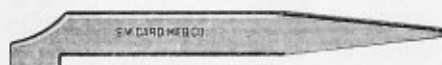
To secure maximum efficiency, they should be ground thoroughly before being placed into service.

Size, in.	Per pound	Length, in.	No. in a lb.	Size, in.	Per pound	Length, in.	No. in a lb.
$\frac{1}{4}$	2 $\frac{1}{2}$	20	$\frac{1}{2}$	.....	4	3
$\frac{3}{8}$	2 $\frac{1}{2}$	13	$\frac{3}{4}$	.....	4	3
$\frac{1}{2}$	3	8	$\frac{1}{2}$	.....	4 $\frac{1}{2}$	2
$\frac{3}{4}$	3 $\frac{1}{2}$	5	$\frac{3}{4}$	.....	5	1

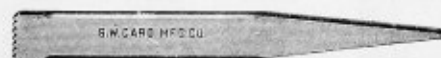
Five pounds in a box.

Note—Prices on application.

HAND THREAD CHASERS



No. 904—Inside



No. 904A—Outside

U. S. Standard or National Form Threads

Threads per in.	Each	Threads per in.	Each	Threads per in.	Each
5	\$1.00	11	\$0.90	24	\$0.70
5 $\frac{1}{2}$	1.00	12	.90	28	.70
6	1.00	13	.90	32	.70
7	1.00	14	.90	36	.70
8	1.00	16	.80	40	.70
9	.90	18	.80		
10	.90	20	.80		

Note—Specify number of chaser and threads wanted when ordering.

LATHE CENTERS

MORSE



No. 295—Carbon Steel

No. 1295—High Speed Steel

These Lathe Centers are ground to standard Morse tapers. Included angle of point is 60° and ground true. Other tapers made to order.

Morse taper Shank, Nos.	Carbon steel	High speed steel points	Length overall, in.
0	\$0.50	\$1.50	2 $\frac{3}{4}$
1	.60	1.75	3 $\frac{1}{8}$
2	.75	2.50	4 $\frac{1}{8}$
3	1.25	3.25	5 $\frac{1}{4}$
4	1.75	4.75	6 $\frac{3}{4}$
5	3.50	9.25	8 $\frac{1}{2}$

LATHE MANDRELS

MORSE



No. 570—Hardened and Ground

Tool steel, hardened and accurately ground. Tapered .0005 to 1 in., slightly under size on the entering end. They correspond in size to reamers and will fit holes reamed by them.

Other tapers per foot can be furnished at special prices.

Size stamped on large end.

Diam., in.	Each	Lgth., in.	Diam., in.	Each	Lgth., in.	Diam., in.	Each	Lgth., in.
$\frac{1}{8}$	\$1.20	2 $\frac{1}{2}$	$\frac{1}{4}$	\$2.00	5 $\frac{3}{4}$	$\frac{1}{2}$	\$6.40	9 $\frac{1}{2}$
$\frac{3}{8}$	1.20	3	$\frac{3}{8}$	2.00	6	$\frac{3}{4}$	7.20	9 $\frac{3}{4}$
$\frac{1}{2}$	1.20	3	$\frac{1}{2}$	2.40	6 $\frac{1}{4}$	$\frac{7}{8}$	7.20	10
$\frac{5}{8}$	1.20	3 $\frac{3}{4}$	$\frac{5}{8}$	2.40	6 $\frac{1}{2}$	$\frac{1}{2}$	8.00	10 $\frac{1}{4}$
$\frac{3}{4}$	1.20	3 $\frac{3}{4}$	$\frac{3}{4}$	2.80	6 $\frac{3}{4}$	$\frac{1}{2}$	8.00	10 $\frac{1}{2}$
$\frac{7}{8}$	1.20	4	1	2.80	7	$\frac{1}{2}$	9.00	10 $\frac{3}{4}$
$\frac{1}{2}$	1.30	4	$\frac{1}{2}$	3.40	7 $\frac{1}{4}$	2	9.00	11
$\frac{3}{4}$	1.40	4 $\frac{1}{4}$	$\frac{3}{4}$	3.40	7 $\frac{1}{2}$	$\frac{1}{2}$	10.00	11 $\frac{1}{2}$
$\frac{1}{2}$	1.40	4 $\frac{1}{4}$	$\frac{1}{2}$	4.00	7 $\frac{3}{4}$	$\frac{1}{2}$	11.00	12
$\frac{3}{4}$	1.50	4 $\frac{1}{2}$	$\frac{1}{2}$	4.00	8	$\frac{1}{2}$	12.00	12
$\frac{1}{2}$	1.50	4 $\frac{1}{2}$	$\frac{1}{2}$	4.80	8 $\frac{1}{4}$	$\frac{1}{2}$	13.00	12 $\frac{1}{2}$
$\frac{3}{4}$	1.60	5	$\frac{1}{2}$	4.80	8 $\frac{1}{2}$	$\frac{1}{2}$	14.50	12 $\frac{1}{2}$
$\frac{1}{2}$	1.60	5	$\frac{1}{2}$	5.60	8 $\frac{3}{4}$	$\frac{1}{2}$	16.00	13
$\frac{3}{4}$	1.80	5 $\frac{1}{4}$	$\frac{1}{2}$	5.60	9	$\frac{1}{2}$	17.50	13
$\frac{1}{2}$	1.80	5 $\frac{1}{4}$	$\frac{1}{2}$	6.40	9 $\frac{1}{4}$	3	19.00	13

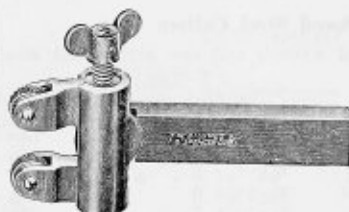
KNURLING TOOLS

BILLINGS & SPENCER

For Lathe Use

Forged steel with movable arms.

Each



No. BJ — 6x1x $\frac{1}{2}$ in. holder, maximum opening 1 $\frac{1}{2}$ in., minimum opening $\frac{1}{4}$ in. between knurl, with 1 pair knurls, wt. each 1 $\frac{1}{2}$ lbs.\$16.25

Extra Knurls— $\frac{3}{4}$ x $\frac{1}{2}$ in., coarse, fine or medium.....\$4.00

One in a box.

ADJUSTABLE KNURL HOLDERS



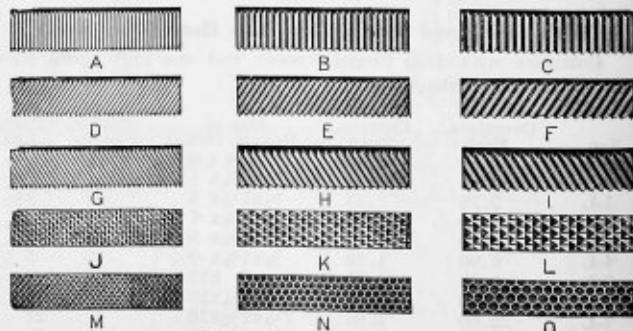
Polished Steel, Hardwood Handle

Per dozen

No. 20—Holds knurls up to $\frac{1}{2}$ in. thick.....\$14.00

One-half dozen in a box.

KNURLS



Tool Steel, Hardened

Letters designate style of knurls.

Per dozen

No. 8— $\frac{3}{4}$ in. diameter, $\frac{1}{4}$ in. thick, .173 in. hole.....\$9.60

LUFKIN**Measuring Tapes and Rules**

OUTSIDE MICROMETER CALIPERS

LUFKIN HALF INCH

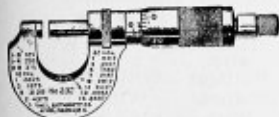


With
Ratchet
Stop and
Lock Nut

Each
No. 640—Measures 0 to 1/2 inch by
thousandths of an inch; wt.
each 3 oz.\$8.50

One in a box.

STARRETT HALF INCH



With
Ratchet
Stop and
Lock Nut

Cut away frame for use in places where
ordinary frame cannot be used.

Each
No. 232—Measures 0 to 1/2 inch by
thousandths of an inch; wt.
each 3 oz.\$8.50

Leather CaseExtra 1.20

One in a box.

BROWN & SHARPE HALF INCH



With
Ratchet
Stop

Each
No. 4RS—Measures 0 to 1/2 inch by
thousandths of an inch; weight
each 3 oz.\$7.50

Leather CaseExtra 1.20

One in a box.



With Ratchet Stop and Clamp Ring

Each
No. 5RS—Measures 0 to 1/2 in. by
thousandths of an inch; weight
each 3 oz.\$8.50

Leather CaseExtra 1.20

One in a box.

LUFKIN ONE INCH



Without
Lock Nut
or with
Lock Nut

Frame cut away to give clearance.
Measures 0 to 1 inch by thousandths
of an inch.

Nos.	Each	Kind	Wt. ea., oz.
1611	\$8.50	Without Locknut	3
1621	9.50	With Locknut	3

One in a box.

LUFKIN ONE INCH



With
Ratchet
Stop and
Lock Nut
Rapid
Reading

Frame cut away to give clearance.
Measures 0 to 1 inch.

Nos.	Each	Thousandths of an inch	Wt. ea., oz.
1641	\$10.00	One thousandths	7
1641V	11.75	Ten thousandths	7

One in a box.



176

Direct
Reading.
With Ratchet
Stop and
Lock Nut

Gives total reading of measurements.
Frame cut away for clearance.

Each
No. 1641DT—Measures 0 to 1 inch
by thousandths of an inch; wt.
each 7 oz.\$11.00

One in a box.

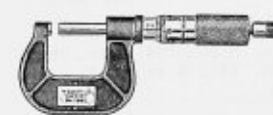


With Thumb
Screw Lock
Nut
Wood Handle
Rapid Reading

Used principally in hot
mills, wood handle allows
mechanics hand to keep
away from hot metals.

Each
No. 621BH—Measures
0 to 1 inch by thou-
sandths of an inch;
wt. each 10 oz.\$11.00

One in a box.



Rapid
Reading
Enameled
Frame
Cut away
for clear-
ance.

0 to 1 inch
Measuring by Thousandths of an Inch

Nos.	Each	Lock nut and ratchet stop	Wt. ea., oz.
1811	\$6.25	Without	6
1821	7.25	With Stop	6
1841	7.95	With Nut and Stop	6

Measuring by Ten Thousandths
1841V \$9.50 With Nut and Stop 6
One in a box.

STARRETT ONE INCH



With
Ratchet
Stop and
Lock Nut

Measures
0 to 1 inch.

Nos.	Each	Thousandths of an inch	Wt. ea., oz.
3	\$10.00	One thousandths	8
113	11.75	Ten thousandths	8

Leather CaseExtra \$1.25

One in a box.

STARRETT ONE INCH



With Ratchet
Stop and
Lock Nut

Frame cut
for clearance.

Measures 0 to 1 inch.

Nos.	Each	Thousandths of an inch	Wt. ea., oz.
230	\$10.00	One thousandths	8
231	11.75	Ten thousandths	8

Leather CaseExtra \$1.25

One in a box.

STARRETT—HALF AND ONE INCH



With Finger
Ring, Ratchet
Stop and
Lock Nut

Measuring 0
to 1/2 and 0 to
1 inch.

Nos.	Each	Thousandths of an inch	Wt. ea., oz.
220	\$11.25	Up to 1 inch	8
221	9.75	Up to 1/2 inch	4

Leather CaseExtra \$1.25

One in a box.

BROWN AND SHARPE ONE INCH



With Clamp
Ring, With
or Without
Ratchet
Stop

Measures 0 to 1 inch by thousandths of
an inch.

Nos.	Each	Ratchet stop Without Stop	Wt. ea., oz.
8	\$9.50	Without Stop	8
8RS	10.00	With Stop	8

Leather CaseExtra \$1.25

One in a box.



With Clamp
Ring, With
and With-
out Ratchet
Stop

Measures 0 to 1 inch by thousandths or
ten thousandths of an inch.

Nos.	Each	Ratchet stop Without Stop	Wt. ea., oz.
10	\$11.25	Without Stop	8
10RS	11.75	With Stop	8

Leather CaseExtra \$1.25

One in a box.



With Clamp
Screw With
and Without
Ratchet
Stop

Wood Handle

Used in hot mills, 2 1/2
inch handle. For measur-
ing hot metals.

Measures 0 to 1 inch by
thousandths of an inch.

Nos.	Each	Ratchet stop Without Stop	Wt. ea., oz.
17	\$12.00	Without Stop	9
17R	12.50	With Stop	9

One in a box.

SLOCOMB ONE INCH



Direct Reading
A simple compact combination of a counting device with a micrometer reading with accuracy to thousandths of an inch.

Each
No. 35DR—0 to 1 in.....\$17.50
One in a morocco case.

LUFKIN TWO INCH



With Ratchet Stop and Lock Nut Rapid Reading

Enameled frame.

Each
No. 1842—Measures 1 to 2 inches by thousandths of an inch; wt. each 8 oz.\$8.50

One in a box.

STARRETT TWO INCH



With Ratchet Stop and Lock Nut and 1 Inch Test Gage

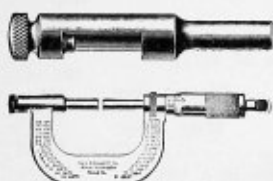
Measures 1 to 2 inches.

Nos.	Each	Thousandths of an inch	Wt. ea., oz.
2	\$11.00	One Thousandths	10
213	12.75	Ten Thousandths	10

Leather CaseExtra \$1.60

One in a box.

STARRETT TWO INCH WITH ATTACHMENT



With Ratchet Stop and Lock Nut and 1 Inch Test Gage

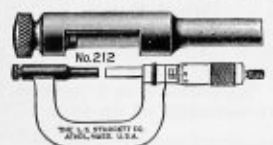
Fitted attachment converting

caliper into a 0 to 2 inch gage.

Each

No. 2A—Measures 0 to 2 inches by thousandths; wt. each 10 oz.\$14.00
Leather CaseEach 1.80

STARRETT ATTACHMENTS



Converts a 2 inch caliper into a 1 inch caliper.

Each

No. 212—Wt. each 3 oz.\$3.00

One in a box.

OUTSIDE MICROMETER CALIPERS

BROWN & SHARPE TWO INCH



With Clamp Ring With and Without Ratchet Stop

Adjustable anvil gives measurements 0 to 1 inch when in position shown and from 1 to 2 inch when drawn out by thousandths of an inch.

Nos.	Each	Ratchet stop	Wt. ea., oz.
45	\$13.50	Without	10
45RS	14.00	With	10

Leather CaseExtra \$1.60
One in a box.

LUFKIN THREE INCH



With Ratchet Stop and Lock Nut Rapid Reading

Enameled frame.

Each
No. 1843—Measures 2 to 3 inches by thousandths; wt. each 10 oz.\$9.25
One in a box.

LUFKIN IN SETS



With Plain Stop and Ratchet Stop With Lock Nut Rapid Reading No. 184A

Set contains one each,
No. 1811-1"
No. 1812-2"
No. 1813-3"

No. 184C

Contains one each No. 1841-1 in., 1842-2 in., 1843-3 in., 1844-4 in., 1845-5 in., and 1846-6 in.

Nos.	Per Set	Test gage	Ratchet and stop	Wt. set, lbs.
184A	\$27.25	\$25.00	Without	3 1/2
184C	72.75	65.25	With	3 1/2

One set in a box.

SLOCOMB 0 to 6 INCH



"I" section frame gives great rigidity with little weight. All steel screw.

Measures thousandths of an inch. Without friction stop.

Nos.	Each	Range, in.	Wt. ea., oz.
25	\$6.25	0 to 1	6
27	7.00	1 to 2	8
28	7.75	2 to 3	11
28A	8.50	3 to 4	15
28B	9.25	4 to 5	24
28C	10.00	5 to 6	30

One in a box.

LUFKIN 0 to 6 INCH



Especially designed for production work, having a sturdy ribbed frame, to withstand the harder usage, without additional weight.

Enameled frame, rapid reading.

For Measuring by Thousandths

Range 0 to 1 inch.

Nos.	Each	Ratchet stop	Lock nut	Wt. ea., oz.
1911	\$6.25	Without	Without	7
1921	7.25	Without	With	7
1931	6.75	With	Without	7
1941	7.75	With	With	7

For Measuring by Thousandths

Range 1 to 2 inches.

Nos.	Each	Ratchet stop	Lock nut	Wt. ea., oz.
1912	\$7.00	Without	Without	9
1922	8.00	Without	With	9
1932	7.50	With	Without	9
1942	8.50	With	With	9

Test Gage—ExtraEach \$1.00

For Measuring by Thousandths

Range 2 to 3 inches.

Nos.	Each	Ratchet stop	Lock nut	Wt. ea., oz.
1913	\$7.75	Without	Without	12
1923	8.75	Without	With	12
1933	8.25	With	Without	12
1943	9.25	With	With	12

Test Gage—ExtraEach \$1.25

For Measuring by Thousandths

Range 3 to 4 inches.

Nos.	Each	Ratchet stop	Lock nut	Wt. ea., oz.
1914	\$8.50	Without	Without	19
1924	9.50	Without	With	19
1934	9.00	With	Without	19
1944	10.00	With	With	19

Test Gage—ExtraEach \$1.50

For Measuring by Thousandths

Range 4 to 5 inches.

Nos.	Each	Ratchet stop	Lock nut	Wt. ea., oz.
1915	\$9.25	Without	Without	22
1925	10.25	Without	With	22
1935	9.75	With	Without	22
1945	10.75	With	With	22

Test Gage—ExtraEach \$1.75

For Measuring by Thousandths

Range 5 to 6 inches.

Nos.	Each	Ratchet stop	Lock nut	Wt. ea., oz.
1916	\$10.00	Without	Without	27
1926	11.00	Without	With	27
1936	10.50	With	Without	27
1946	11.50	With	With	27

Test Gage—ExtraEach \$2.00

All above, one in a box.

Note—For any of the above micrometers in ten-thousandths, add \$1.75 to list prices and add suffix "V" as 1911V, 1946V, etc.

All micrometers sent without test gage unless otherwise ordered.

BROWN & SHARPE 0 TO 12 INCH



With Clamp Ring
Measures by thousandths of an inch.

Without Standards

Nos.	Each	Standards, each	Cases, each	Cap., in.	Wt. each, oz.
61	\$8.00	\$1.00	\$1.60	1-2	1 1/2
63	8.75	1.25	3.00	2-3	3/4
65	9.50	1.50	3.50	3-4	1
67	10.25	1.75	4.00	4-5	1 1/2
69	11.00	2.00	4.75	5-6	1 3/4
71	12.00	2.25	....	6-7	3
72	13.00	2.50	....	7-8	3 3/4
73	14.00	2.75	....	8-9	4 1/4
74	15.00	3.00	....	9-10	6 1/4
75	16.00	3.25	....	10-11	7 1/4
76	17.00	3.50	....	11-12	7 1/2

Note—Any of above can be furnished with ratchet stops when so ordered at 50 cents extra.

Nos. 61, 63 and 65 can be furnished to read ten thousandths of an inch at \$1.50 extra.

Nos. 71 to 76 furnished in hinged boxes.

Be sure to state if wanted with standards when ordering.

STARRETT 1 TO 6 INCH



With or Without Ratchet Stops

Drop forged enameled frame. 1 inch size all polished.

Measures by thousandths of an inch.

Capacities stamped on frame.

No. 226

Size, in.	With ratchet stop, each	Without ratchet stop, each	Standards extra, each	Leather case, each
1-2	\$9.00	\$8.50	\$1.00	\$2.50
2-3	10.50	10.00	1.25	3.00
3-4	11.25	10.75	1.50	3.50
4-5	12.50	12.00	1.75	4.00
5-6	13.50	13.00	2.00	4.75

One in a box.

IN SETS

Nos. 226D, 226H with ratchet stop.
Nos. 226C, 226G without ratchet stops.

Nos.	Per set	Standards extra, each	Leather case, each	Cap., in.	Callipers in a set
226D	\$29.50	\$2.25	\$4.00	0-3	3
226H	68.75	7.50	7.50	0-6	6
226C	28.00	2.25	4.00	0-3	3
226G	63.75	7.50	7.50	0-6	6

Capacity 0 to 1 in. above sets is Starrett's No. 201 and 3 calipers.

OUTSIDE MICROMETER CALIPERS

STARRETT 0 TO 6 INCH



With or Without Ratchet Stop

Decimals stamped on spindle. These calipers meet the demand for accurate gages at a low price.

Measures by thousandths of an inch.

Black enamel finish.

No. 436

Size, in.	With ratchet stop, each	Without ratchet stop, each	Standards extra, each	Leather case, each
0-1	\$6.75	\$6.25	....	\$1.25
1-2	7.50	7.00	\$1.00	2.50
2-3	8.25	7.75	1.25	3.00
3-4	9.00	8.50	1.50	3.50
4-5	9.75	9.25	1.75	4.00
5-6	10.50	10.00	2.00	4.75

One in a box.

IN SETS

Nos. 436A, 436B without standards, without ratchet stops.

No. 436C, 436D without standards, with ratchet stops.

Nos.	Per set	Standards extra, each	Leather case, each	Cap., in.	Callipers in a set
436A	\$21.00	\$2.25	\$4.00	0-3	3
436B	48.75	7.50	7.50	0-6	6
436C	22.50	2.25	4.00	0-3	3
436D	51.75	7.50	7.50	0-6	6

One set in a box.

LUFKIN 0 TO 6 INCH



With or Without Ratchet Stop and Lock Nut

Interchangeable anvils. Rapid reading. Ribbed medium weight frame. Enameled.

Measures by thousandths of an inch.

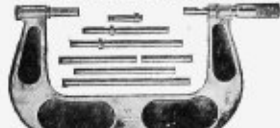
With Test Gage

Nos.	With lock nut, each	With lock nut and ratchet stop, each	Cap., in.	Wt. each, oz.
824A	\$20.75	....	1-4	22
844A	....	\$21.25	1-4	22
824AX	21.75	....	0-4	22
844AX	....	22.25	0-4	22
826A	26.50	....	2-6	38
846A	....	27.00	2-6	38

One in a box.

Note—Test gages supplied with above micrometers unless ordered otherwise.

BROWN & SHARPE 2 TO 6 INCH



With Ratchet Stop with Clamp Ring

Interchangeable anvils, ribbed frame. Enameled.

Measures by thousandths of an inch.

Nos.	Without ratchet stop, each	With ratchet stop, each	Set of 4 standards extra per set
55	\$20.00	....	\$6.50
55RS	....	\$20.50	6.50

One in a box.

STARRETT 2 TO 6 INCH



With Ratchet Stop or without Ratchet Stop

For Automobile and Aviation Service Shops

Designed for automobile and aeroplane repair men to meet the demand for cylinder regrinding and reboring shops. It will measure all ordinary pistons.

Well balanced and the shape of the frame with the holes makes it easy to handle. Measures by thousandths of an inch.

Nos.	Without ratchet stop, each	With ratchet stop, each	Set of 4 standards extra per set
224A	\$20.00	....	\$6.50
224A	....	\$20.50	6.50

One in a box.

LUFKIN SCREW THREAD



Rapid Reading Each Thousandth Numbered

For measuring threads on pitch diameter. Swivel or fixed anvils.

Nos.	Each	Threads per inch	Cap., in.	Thread	Wt. ea., oz.
611T	\$12.00	8-13	1	V or USS	7
611T	12.00	14-20	1	V or USS	7
611T	12.00	22-30	1	V or USS	7
611T	12.00	32-40	1	V or USS	7
612T	14.50	4 1/2-7	2	V or USS	10
612T	14.50	8-13	2	V or USS	10
612T	14.50	14-20	2	V or USS	10
612T	14.50	22-30	2	V or USS	10

Note—Specify thread and anvil when ordering.

One in a box.

TUBE MICROMETER CALIPERS

LUFKIN 0 TO 1/2 INCH



With Ratchet Stop

Cut away frame for clearance.

For measuring thickness of tubing. Rapid reading, rounded anvil touches only one point on inside of tube, end of spindle is flat for outside of tube.

Each

No. 2630—Measures 0-1/2 inch by thousandths of an inch; weight each 3 oz.\$8.50

One in a box.

BROWN & SHARPE 0 TO 1/2 INCH



With or without Ratchet Stop

Cut away frame for clearance.

For measuring thickness of tubing. Rounded anvil touches one point inside of tube, flat spindle for outside of tube. Measures by thousandths of an inch.

Nos.	Without ratchet stop, each	With ratchet stop, each	Leather case, each	Wt. ea., oz.
225	\$8.00	.....	\$1.20	3
225R	....	\$8.50	1.20	3

One in a box.

PAPER GAGE MICROMETER CALIPERS

LUFKIN 0 TO 3/4 INCH



With Ratchet Stop

Rapid reading. For measuring paper,

cardboard, sheet rubber, etc. Large measuring surfaces. Each thousandth numbered.

Each

No. 3630—Measures 0-3/4 inch by thousandths of an inch; weight each 3 oz.\$10.00

One in a box.

MICROMETER HEADS

LUFKIN

With Ratchet Stop
Thousandths of an Inch

Nos.	Each	Size head, in.	Cap., in.	Wt. ea., oz.
030	\$4.50	1/2	0-1/2	1 1/2
031	5.50	1	0-1	4

Ten Thousandths of an Inch

Nos.	Each	Size head, in.	Cap., in.	Wt. ea., oz.
030V	\$6.25	1/2	0-1/2	1 1/2
031V	7.25	1	0-1	4

One in a box.

INSIDE MICROMETER CALIPERS

LUFKIN



For Internal and Linear Measurements

Built up with extension rods at both ends each rod being adjustable for length by means of a hardened plug on end. The head is kept central where it is easiest to get proper feel and for adjustments. Measures by thousandths of an inch.

Nos.	Each	Range, in.	No. of rods	Move-ment of scw., in.	Wt. ea., oz.
680A	\$12.00	1 1/2-8	5	1/2	8 1/2
680B	15.00	1 1/2-12	8	1/2	12
681C	18.00	4-24	7	1	27
681D	20.00	4-32	8	1	39
681K	24.00	4-40	10	1	48
6801D	30.00	1 1/2-32	10	1/2-1	56

One set in a box.

Note—No. 6801D has two heads.

STARRETT



For Internal and Linear Measurements

Built up with extension rods at both ends, the contact surfaces are hardened and provision made for adjustment to compensate for wear. Head is kept central for easy reading and proper feel in measuring.

Measures by thousandths of an inch.

Nos.	Each	Range, in.	No. of rods	Move-ment of scw., in.	Wt. ea., oz.
124A	\$7.25	2-8	6	1/2	4
124B	8.50	2-12	10	1/2	8
124C	10.25	8-32	4	1-2	21
124D	17.50	2-32	10	1/2-2	26

Note—Above prices do not include cases.

One set in a box.

Leather Cases

For Nos. 124A 124B 124C 124D
Each\$1.75 2.75 4.00 5.00



Auxiliary Handle for Above

For use with above Nos. 124A to 124D calipers for measuring in holes and very convenient in holding caliper.

Each
No. 124H—Handle only.....\$0.75

INSIDE MICROMETER CALIPERS

BROWN & SHARPE .200 TO 1 INCH



With Clasp Screw

For measuring internal dimensions.

Measuring surfaces are hardened steel and ground on a radius to insure accurate measurements. Measures by thousandths of an inch.

Each

No. 250—Wt. each 5 oz.\$15.00
Leather CaseExtra 1.25

BROWN & SHARPE 1/2 TO 2 INCH



With Clasp Screw

Shape of jaws permit the user to

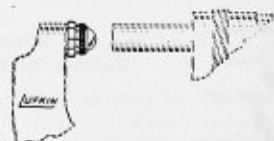
take inside measurements over flange or shoulder. Measures by thousandths of an inch.

Nos.	Each	Range, in.	Wt. ea., oz.
252	\$15.00	1/2-1 1/2	6
254	15.00	1-2	6

Leather CaseExtra \$1.50

BALL ATTACHMENTS FOR MICROMETERS

LUFKIN



Fits Either Anvil or Spindle

Used on micrometer calipers for measuring tubing or other round surfaces. Diameter of ball is .200 inch.

Nos.	Each	Fits all micrometer calipers spindle diam., in.
16	\$0.50	.250
19	.50	.270

Six in a box.

HEIGHT GAGE ATTACHMENTS

STARRETT



Used in connection with No. 124 Inside Micrometer calipers.

A steel base for attaching caliper for use as a height gage. Caliper is held perpendicular and a slight turn of knurled nut on base clamps or releases it from base.

Each
No. 447—Wt. each 4 oz.\$2.50

One in a box.

TELESCOPING GAGES

LUFKIN



Used for measuring holes or slots. Consists of a handle and two plungers one telescoping into the other and both under spring tension. Locked by slight turn of knurled screw. Ends of plungers are hardened.

Nos.	Each	Range inches	Wt. ea., oz.
79AA	\$1.80	$\frac{1}{8}$ - $\frac{1}{2}$	$\frac{1}{2}$
79A	1.80	$\frac{1}{2}$ - $\frac{3}{4}$	$\frac{1}{2}$
79B	2.10	$\frac{3}{4}$ - $1\frac{1}{4}$	$\frac{1}{2}$
79C	2.40	$1\frac{1}{4}$ - $2\frac{1}{8}$	1
79D	3.00	$2\frac{1}{8}$ - $3\frac{1}{2}$	3
79E	3.60	$3\frac{1}{2}$ - 6	$3\frac{1}{2}$

In Sets

Nos.	Per set	Gages in sets	Wt., oz.
79SS	\$7.30	79A to 79C	4
79S	14.40	79A to 79E	9

One each or one set in a box.

STARRETT



For measuring holes in slots. Consists of a handle and two plungers one telescoping into the other and both under spring tension. Locked by a slight turn of knurled screw. Ends of plunger are hardened.

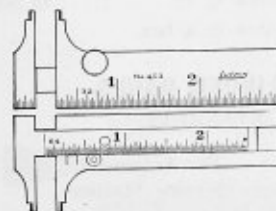
both under spring tension. Locked by a slight turn of knurled screw. Ends of plunger are hardened.

Nos.	Each	Range inches	Wt. ea., oz.
229A	\$1.80	$\frac{1}{2}$ - $\frac{3}{4}$	$\frac{3}{4}$
229B	2.10	$\frac{3}{4}$ - $1\frac{1}{4}$	1
229C	2.40	$1\frac{1}{4}$ - $2\frac{1}{8}$	$1\frac{1}{2}$
229D	3.00	$2\frac{1}{8}$ - $3\frac{1}{2}$	3
229E	3.60	$3\frac{1}{2}$ - 6	4

One in a box.

POCKET SLIDE CALIPERS

LUFKIN



For Outside or Inside Measurements

With improved clamping device; graduated in 32nds

and 64ths. The slide has stop which prevents it from being withdrawn.

Nos.	Each	Lgth., in.	Jaws depth, in.	Nibs closed, in.	Wt. oz.
453	\$4.00	3	$\frac{1}{8}$	$\frac{1}{8}$	1
455	5.00	5	$1\frac{1}{8}$	$\frac{1}{4}$	3

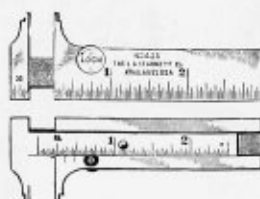
Stainless Steel

Nos.	Each	Lgth., in.	Jaws depth, in.	Nibs closed, in.	Wt. oz.
S453	\$6.75	3	$\frac{1}{8}$	$\frac{1}{8}$	1
S455	8.00	5	$1\frac{1}{8}$	$\frac{1}{4}$	3

One in a box.

POCKET SLIDE CALIPERS

STARRETT



With Improved Clamping Device

Graduated in 32nds on the stock and 64ths on the side. The two lines on the

stock as shown in lower cut enable the user to get inside or outside measurements.

No. 425			
Length, in.	Each	Width inch	Wt. ea., oz.
3	\$4.00	$\frac{1}{8}$	1
5	5.00	$1\frac{1}{8}$	3

One in a box.

CIRCUMFERENCE GAGES

LUFKIN



Can be used as a regular slide caliper. Lower edge of slide graduated standard inches to 32nds, upper edge circumference inches to 16ths. Stock is graduated 5 inches to 32nds. Measures up to $11\frac{1}{4}$ inches diameter and will caliper a cylinder up to $2\frac{3}{4}$ inches.

Each
No. 455P—Length 5 inches; capacity $3\frac{3}{4}$ inch diam. jaws $1\frac{1}{2}$ in. deep; nibs $\frac{1}{4}$ in. when closed; wt. each 3 oz. \$5.00

One in a box.

CALIPER SQUARES

BROWN & SHARPE



For inside or outside measurements.

For work where extreme accuracy is not required, also for work where the number of pieces will not warrant the expense of fixed gauges. Graduations on one side to 64ths, other side to 100ths of an inch. Adjusting screw holds caliper for accuracy.

No. 560—With Adjusting Screw

Size, in.	Each	Leather case each	Lgth. jaws in.	Width jaws in.
4	\$10.20	\$1.75	$1\frac{1}{2}$	$\frac{1}{4}$
6	13.20	2.00	2	$\frac{1}{4}$

No. 560—Without Adjusting Screw

Size, in.	Each	Leather case each	Lgth. jaws in.	Width jaws in.
4	\$9.00	\$1.75	$1\frac{1}{2}$	$\frac{1}{4}$
6	10.80	2.00	2	$\frac{1}{4}$

One in a box.

VERNIER CALIPERS

BROWN & SHARPE



For Inside or Outside Measurements

Graduated to read on one side for outside and on the other side for inside measurements and the Vernier plate for inside measurements on each tool is set to compensate for thickness of the measuring points of tool.

No. 570

Size, in.	Each	Leather case each	Lgth. jaws in.	Width jaws in.
6	\$24.00	\$2.75	$1\frac{1}{4}$	$\frac{1}{4}$
12	30.00	4.00	$2\frac{1}{4}$	$\frac{1}{8}$
24	42.00	7.00	$2\frac{1}{4}$	$\frac{1}{8}$
36	90.00	15.00	$2\frac{3}{4}$	$\frac{1}{2}$

One in a box.

SURFACE GAGES

LUFKIN UNIVERSAL

Hardened Base



Embodies all the latest improvements in construction and design. Base is well proportioned, the bottom and end being grooved out for cylindrical work. Four gage pins used as guides on linear work are especially important.

The spindle is made of rigid, hollow, steel tubing.

The base of gage is finished in mottled blue with all measuring faces ground and polished. Length of spindle listed does not include the base.

Nos.	Each	Size base, in.	Spindle in.	Wt. lbs.
520A	\$4.75	$3\frac{1}{4}$	9	$2\frac{3}{4}$
520B	5.25	$3\frac{1}{4}$	9 and 12	3
520C	5.00	$3\frac{1}{4}$	12	$2\frac{3}{4}$

One in a box.

LUFKIN UNIVERSAL

TOOLMAKERS



Hardened Base

Suitable for light work. Spindle passing through rotating head can be set up-right and at any angle so scriber can be used below the base. Exact fine adjustment setting is made by screw at one end.

Nos.	Each	Base size in.	Spindle in.	Wt. oz.
521A	\$4.10	$2\frac{3}{4}$	4	12
521B	4.40	$2\frac{3}{4}$	4 and 7	14

One in a box.

SURFACE GAGES

STARRETT

Grooved Base

In rear of base are two gage pins frictionally held, which may be pushed down to bear against the edge of a surface plate or in the slot of a planer bed for linear work. Japanned iron base.

Length of spindle included with bases except 12 and 18 in. spindles on Nos. 57B and 57D.

Nos.	Each	Size base, in.	Spindle, in.	Wt. each, lbs.
57A	\$3.50	3	9	2
57B	4.00	3	9 and 12	2½
57C	4.85	3½	12	3½
57D	5.50	3½	12 and 18	4½

One in a box.

With Grooved Base Hardened Steel Base

In the base are four gauge pins, frictionally held, which may be pushed down to bear against the edge of a surface plate, or in the slot of a planer bed for linear work. The grooved base adapts this tool for use on circular work.

Spindle passes through a rotating head, jointed to a rocker bracket, pivoted in base.

Length of spindle included with bases except 12 and 18 in. spindles on Nos. 257B and 257C.

Nos.	Each	Size base, in.	Spindle, in.	Wt. each, lbs.
257A	\$4.75	3	9	2¼
257B	5.25	3	9 and 12	2½
257C	5.85	3½	12	4½
257D	6.50	3½	12 and 18	4¾

One in a box.

STARRETT TOOL MAKERS'



Auxiliary Guide

With Case Hardened Steel Base

For light work.

Top side is slotted and the rocking bracket for fine adjustments is pivoted in same. Auxiliary guide is clamped to base for either a circular or straight edge. Base is depressed on sides for finger and thumb.

Nos.	56A	56B
Spindle, in.	4	4
Wt. each, oz.	12	11
Each with auxiliary guide.	\$4.10	....
Each without aux. guide.	....	\$3.50

One in a box.

TEST INDICATORS

STARRETT UNIVERSAL



Graduated to read .015 inches either side of zero. Used to test inside or outside of surface work.

Head of needle has three working points.

Nos.	Each	Wt., oz.
64A	\$4.25	Complete 15
64B	3.00	Indicator only 4
64C	.90	Tool post holder only 8
64D	1.25	Tool post holder with arm 8

One in a box.

STARRETT UNIVERSAL DIAL



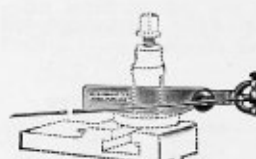
Easily Read and Very Sensitive

Circumference of dial divided into 100 equal spaces, each representing a movement of one-thousandth of an inch. One revolution of hand indicates one-tenth. Capacity of instrument is two-tenths.

Nos.	Each	Wt., oz.
196A	\$13.50	Complete 32
196B	9.00	Indicator only with 3 contact points 4
196F	1.80	Hole attachment 2
196G	.90	Clamp 4
196H	.90	Tool post holder 4
196K	.90	Sleeve for 9 in. spindle. 16

One in a box.

STARRETT CENTER



Designed to use in adjusting and locating centrally any point or hole in a piece of work operated upon in a lathe. Indicating needle is 12½ in. long, a .175 in. diameter steel ball is used on point of needle for inside work.

No. 65—Wt. each 9 oz.	Each \$4.75
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One in a box.

TEST INDICATORS

KOCH



For tool makers, machinists and inspectors. Very sensitive. Plunger graduated 1/1000 of an inch to each movement or 2/1000 of an inch of the bell crank lever on opposite side of the indicator.

No. K1	Each \$5.00
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One in a box.

IDEAL



HALF SIZE

Made of hardened tool steel.

Scale graduated in thousandths, divisions 1/16 of an inch apart, making reading easy.

Contact point is adjustable to any position, enabling user to reach small holes or in inaccessible places with ease.

Accurate, and extremely sensitive.

Nos.	Each	Indicator	Wt., oz.
S	\$3.00	Single	¾
D	4.00	Double	¾

One in a box.

MILLING MACHINE WIGGLERS



With Reversible Point

For jig and tool work, locating center of work on milling machines, drill presses, etc.

Length open 4¼ inches, length closed 2¾ inches. Point 1¼ inches, diameter chuck ½ inch.

No. 18—Wt. each ¼ lb.	Each \$1.50
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One in a box.

CYLINDER GAGES

STARRETT

For Automobile Service Stations

Used in regrinding and rebor-ing cylinders.

Rugged construction having a non-breakable crystal over dial. Hand travels over dial reading .001 inch. Provisions for diameter from 2½ to 6 inches are made with adjustable rods. Nickel plated finish.



No. 452A—Wt. each 12 oz.	Each \$15.00
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One in a box.

SPEED INDICATORS

STARRETT, HIGH SPEED



With Three
Tips,
Knurled
Handle

May be run at high speed without heating, all working parts encased, dial plate has two rows of figures reading right or left as the shaft may run.

Equipped with knob passing under thumb noting every 100 revolutions. Nickel plated finish.

Each
No. 104—Wt. each 4 oz.\$1.25
Leather CaseExtra 1.35

One in a box.

STARRETT, IMPROVED



With
Three Tips,
Rubber
Handle

Made like a watch, enclosed working parts. Graduations show every revolution with two rows of figures reading right or left as shaft may run. Every 100 revolutions noted by knob passing under thumb; nickel plated with rubber handle.

Each
No. 106—Wt. each 4 oz.\$1.85
Leather CaseExtra 1.35

One in a box.

STARRETT, REGISTERING



With
Three Tips,
Rubber
Handle

Designed to automatically register hundreds as well as units and tens, thus relieving operator from keeping tally. Will register 5000 revolutions.

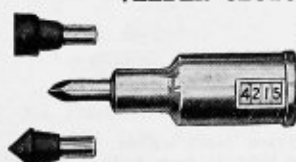
Nickel plated finish.

Each
No. 107—Wt. each 5 oz.\$3.60
Leather CaseExtra 1.50

One in a box.

SPEED COUNTERS

VEEDER CLUTCH



Registers
Revolutions
Per Minute
For en-
gines, shafts
or other re-
volving
parts.

Used in conjunction with ordinary watch. No stop watch needed. Nickel plated, two rubber tips.

Each
No. 21—Wt. each 6 oz.\$3.50

One in a box.

COUNTERS

VEEDER

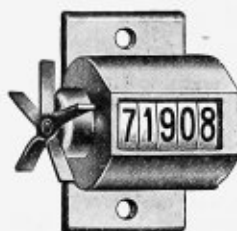


Revolution

Cylindrical flanged case, five figures, shaft on left, turning top coming and subtracts if run backward. Adapted for light, fast running machines.

Black figures on white wheels. Length of flange 1.3625 inch. Chromium finish.

Each
No. 4D3—Wt. each 8 oz.\$2.00



Star Revolution

Cylindrical flanged case, flange on back star wheel on left turning top going, adds one for each tenth revolution of star wheel. Registers five for

one complete revolution. Subtracts when run backward. Black figures on white wheels. Length flange 1.3625 inch. Chromium finish.

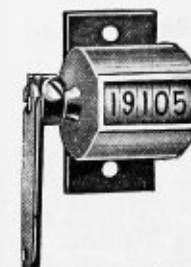
Each
No. 7H3—Wt. each 8 oz.\$2.00



Small Reset Revolution

Shaft on right, turning top going, five white figures on black wheels. Black shrivel case. Chromium ends.

Each
No. AQ18—Wt. each 8 oz.\$6.00



Ratchet

Cylindrical flanged case, five black figures on white wheels with return spring which automatically returns the lever into position for next count. Lever is adjustable allowing the counter to be used at right angles. Length of flange

1.3625 inch. Chromium finish.
Each
No. IS3—Wt. each 8 oz.\$2.50

All above, one in a box.

COUNTERS

VEEDER



Ratchet

Knob reset, turning top going. Shaft on right registers one for each throw of the lever through an angle of 45 degrees. Five white figures on black wheels. Length of flange 1.3625 inch. Black shrivel case. Chromium ends.

Each
No. ZD13—Wt. each 8 oz.\$6.00

One in a box.

VEEDER HAND TALLY



Small case with round corners so as not to irritate the hand or wear the pocket. Used as a traffic register by conductors, gate men, steam boat inspectors, traffic inspectors, attendance register for theatres, tree counter by nurserymen, or for any counting to be done in large numbers up to 9999.

Each press on the thumb lever registers one on the dial of the counter. It is set back to zero from any number by turning knob around once. This saves the bother of subtracting previous reading in order to arrive at correct figures for the latest count. Nickel plated.

Each
No. AB2—Wt. each 6 oz.\$5.00

One in a box.

BENTON



Used by railroad, telegraph and steamboat men for checking passengers and freight, also by conductors, traffic officers, ticket takers, etc., wherever a large count is to be taken. Can be reset at any count. Registers 1 to 1000.

Each
No. 0—Wt. each 5 oz.\$6.00

One in a box.

FILLET OR RADIUS GAGES

STARRETT



With
Concave and
Convex
Leaves

Especially
adapted for
laying out
special form-

ing tools, dies, etc. as well as measuring
fillet.

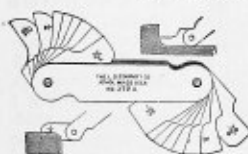
Each

No. 178A—30 leaves stamped to indicate radii by 64ths from $\frac{1}{32}$ to $\frac{1}{2}$ in. (one-half diametric size), diams. are from $\frac{1}{16}$ to $\frac{1}{2}$ in. varying by 32nds.; wt. each 2 oz.\$1.50

No. 178B—32 leaves stamped to indicate radii by 64ths from $\frac{1}{16}$ to $\frac{1}{2}$ inch, diams. are from $\frac{1}{16}$ to $\frac{1}{2}$ in. varying by 32nds.; wt. each 4 oz. 2.00

One in a box.

STARRETT



For Radii of
Fillets and
Corners

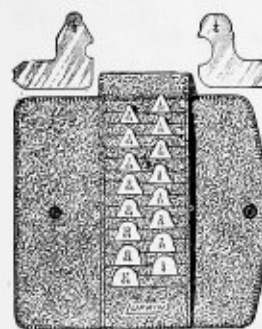
16 blades,
each blade
stamped with
radius in
64ths, the in-

ternal on one side and external on other
side. Can be used in any position.

Nos.	Each	From, in.	Wt. ea., oz.
272A	\$1.25	$\frac{1}{32}$ — $\frac{1}{2}$	2
272B	1.80	$\frac{1}{16}$ — $\frac{1}{2}$	4

One in a box.

LUFKIN



Each
gage of
this set is a
separate
unit which
permits it
to be easily
and accu-
rately ap-
plied to the
work. The
external and
internal
forms are
both on the
same piece.
In leather-
ette case.

Per set

No. 77A Set—16 gages; marked to indicate radii from $\frac{1}{32}$ to $\frac{1}{2}$ in. by 64ths; wt. set 3 oz.\$4.00

No. 77B Set—8 gages, radii $\frac{1}{32}$ to $\frac{1}{2}$ in. by 32nds; wt. set 6 oz. ... 2.50

No. 77C Set—No. 77A and 77B sets combined; wt. set 8 oz. 6.50

No. 77D Set—16 gages, radii $\frac{1}{32}$ to $\frac{1}{2}$ in. by 32nds; wt. set 8 oz. 4.50

One set in a box.

FILLET OR RADIUS GAGE

HOLDERS

LUFKIN



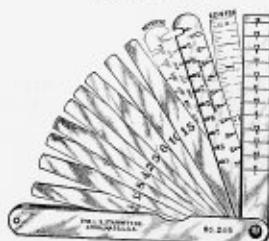
Blade can be placed in 30 or 45 degree slot of holder which enables one to gage very easily in out of way places.

Length 4 inches, knurled on handle. Nut on end of handle holds blades rigidly.

No. 20—Wt. each 2 oz.\$0.75

ENGINEERS' GAGES

STARRETT



Taper Wire and Thickness

For marine engineers, machinists and others requiring a set of gages in compact form. Taper gage in 64ths to $\frac{3}{16}$ ths inch other side in 8 and 16ths of an inch. English standard wire gage, 19 to 36 gage, and $\frac{1}{8}$ and $\frac{1}{4}$ inch slots. Feeler gage .003, .005, .004, .006, .008, .010, .012, .015 and $\frac{1}{16}$ inch.

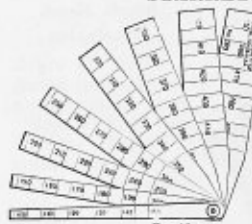
Each

No. 245—Wt. each 5 oz.\$5.00

One in a box.

TAPER GAGES

STARRETT



For Deter-
mining Size
of Holes in
Dies, etc.

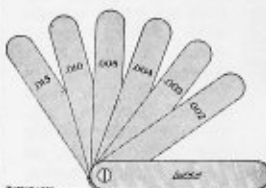
Tempered
spring steel.
Graduated in
thousandths.

Nos.	Each	Lgth., in.	Leaves	Grad., in.	Wt., oz.
269A	\$5.50	$2\frac{1}{2}$	8	$\frac{1}{16}$ — $\frac{1}{2}$	1
269B	6.75	$2\frac{3}{4}$	10	$\frac{1}{16}$ —1	2

One in a box.

THICKNESS GAGES

LUFKIN



Straight
Leaves

Tempered
spring steel
leaves. Size
of leaves $3\frac{1}{2}$
 $\times \frac{1}{2}$ inch.

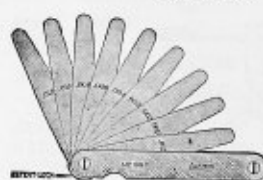
Each

No. 06—6 leaves, .0015, .002, .003, .004, .006, .015; wt. each $\frac{1}{2}$ oz.\$0.90

One in a box.

THICKNESS GAGES

LUFKIN



With
Tapered
Leaves
Patent Lock
Tempered
spring steel
leaves.

Leaves are
tapered to $\frac{1}{4}$

inch giving access to narrow openings.
Size of leaves 3 inches long, $\frac{1}{2}$ inch wide.

Each

No. 109-T—9 leaves, .0015, .002, .003, .004, .006, .008, .010, .012, .015 inch; wt. each 1 oz.\$1.50

No. 110-T—10 leaves, .0015, .002, .0025, .003, .004, .006, .008, .010, .012, .015 inch; wt. each 1 oz. 1.75

No. 126-T—26 leaves, .0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025 inch; wt. each 2 oz. 3.50

One in a box.

LUFKIN



Straight
Leaves
Patent Lock

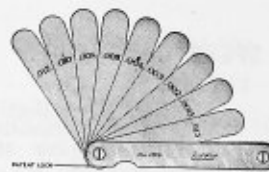
Tempered
spring steel
leaves. Size
of leaves, 3
in. long, $\frac{1}{2}$
inch wide.

Each

No. 126—26 leaves, .0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025 inch; wt. each 2 oz.\$3.50

One in a box.

LUFKIN



Straight Leaves

Tempered spring steel leaves. Size of leaves 3 inches long, $\frac{1}{2}$ inch wide.

Each

No. 109—9 leaves, .0015, .002, .003, .004, .006, .008, .010, .012, .015; wt. each 1 oz.\$1.50

One in a box.

THICKNESS GAGES LUFKIN LONG LEAVES



With Tapered
Leaves Pat-
ent Lock

Tempered
spring steel
leaves.

Adapted for
use in narrow
and deep
openings such
as determining clearance between pistons
and cylinder walls, etc.

Leaf 4½ Inches, Over All Length 9 Inches

Each

No. 208T—8 leaves, .002, .003, .004,
.006, .008, .010, .012, .015; wt.
each 1½ oz. \$2.50

Leaf 6 Inches, Over All Length 12 Inches

Each

No. 308T—8 leaves, .002, .003, .004,
.006, .008, .010, .012, .015; wt.
each 2 oz. \$3.00

One in a box

STARRETT



With Straight
Leaves Pat-
ent Lock

Tempered
spring steel
leaves.

Size of
leaves 2½ x
½ in.

Each

No. 72—22 leaves, .004, .005, .006,
.007, .008, .009, .010, .011, .012,
.013, .014, .015, .016, .017, .018,
.019, .020, .021, .022, .023, .024,
.025; wt. each 2 oz. \$2.50

One in a box.



With Straight
and Tapering
Leaves

Spring tem-
pered steel.

No. 172A—9 leaves, .0015, .002, .003, .004,
.006, .008, .010, .012 and .015.

No. 172B, 172C—8 leaves, .002, .003, .004,
.006, .008, .010, .012 and .015.

Nos.	Each	Shape of leaf	Size of leaf, in.	Wt. each, oz.
172A	\$1.50	Straight	3½ x ½	1
172B	2.50	Tapered	4½ x ½	1½
172C	3.00	Tapered	6 x ½	2

One in a box

THICKNESS GAGES STARRETT LONG LEAVES



With Straight
Leaves

Tempered
spring steel
leaves.

For motor and machine construction
work, used in narrow and deep openings.

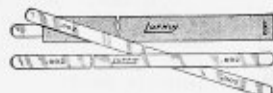
Size of leaf 9x½ inches.

Each

No. 172D—8 leaves, .002, .003, .004,
.005, .006, .008, .010, .015; wt.
each 3 oz. \$3.25
Six in a box.

THICKNESS GAGE STOCK

LUFKIN



A necessity in the manufacturing and
servicing of automobiles. Rounded
ends, each piece marked with gage No.
Size ½x12 inches.

Thickness, in.	Per foot	Thickness, in.	Per foot
.0015	\$0.34	.008	\$0.20
.002	.34	.009	.20
.003	.34	.010	.20
.004	.24	.012	.20
.005	.24	.013	.20
.006	.24	.015	.20
.007	.20		

One piece in an envelope, twelve pieces
in a box.

SCREW PITCH GAGES

LUFKIN



With Pat-
ent Lock

For U. S.
form thread
and sharp V
thread.

Each

No. 74A—22 pitches, threads per
inch 8, 9, 10, 11, 11½, 12, 13,
14, 16, 18, 20, 22, 24, 27, 28,
30, 32, 36, 38, 40, 44 and 48;
wt. each 1 oz. \$1.50

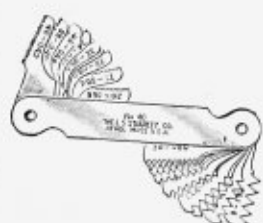
No. 74B—24 pitches, threads per
inch 4, 4½, 5, 5½, 6, 7, 8, 9, 10,
11, 11½, 12, 13, 14, 16, 18, 20,
22, 24, 27, 28, 30, 32 and 36; wt.
each 1 oz. 1.75

No. 74C—28 pitches, threads per
inch 8, 9, 10, 11, 11½, 12, 13,
14, 16, 18, 20, 22, 24, 27, 28, 30,
32, 36, 38, 40, 44, 48, 50, 56, 60,
64, 72 and 80; wt. each 2 oz. 2.00

No. 74D—28 pitches, threads per
inch 3, 3¼, 3½, 4, 4½, 5, 5½,
6, 7, 8, 9, 10, 11, 11½, 12, 13,
14, 16, 18, 20, 22, 24, 27, 28, 30,
32, 36 and 38; wt. each 2 oz. 2.00

One in a box.

SCREW PITCH GAGES STARRETT



For V
Threads

Can be used
on inside of
nut as well
as outside of
screw or bolt.

Threads
11½ and 27
are pipe
threads.

Each

No. 40—22 pitches, threads per inch
9, 10, 11, 11½, 12, 13, 14, 15,
16, 18, 20, 22, 24, 26, 27, 28, 30,
32, 34, 36, 38 and 40; wt. each
1 oz. \$1.25

One in a box.



For V
Threads

Can be used
on inside of
nut as well
as on screws
and bolts.
Threads 11½
and 27 are
pipe threads.

Each

No. 4—24 pitches, threads per inch
4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11,
11½, 12, 13, 14, 15, 16, 18, 20,
22, 24, 26, 27, 28 and 30; wt.
each 2 oz. \$1.50

No. 5—26 pitches, threads per inch
32, 34, 36, 38, 40, 42, 44, 46, 48,
50, 52, 54, 56, 58, 60, 62, 64, 66,
68, 70, 72, 74, 76, 78, 80 and 82;
wt. each 2½ oz. 1.50

No. 6—30 pitches, threads per inch
4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11,
11½, 12, 13, 14, 15, 16, 18, 20,
22, 24, 26, 27, 28, 30, 32, 34, 36,
38, 40 and 42; wt. each 3 oz. 1.75

One in a box.



Positive
Stop

Leaves are
held in rigid
position
when meas-
uring. Threads 11½ and 27 are pipe
threads.

Each

No. 473—30 pitches, threads per
inch 6, 7, 8, 9, 10, 11, 11½, 12,
13, 14, 15, 16, 18, 20, 22, 24, 26,
27, 28, 30, 32, 34, 36, 38, 40, 42,
48, 50, 56 and 60; wt. each
2 oz. \$1.80

No. 475—26 pitches, threads per
inch 3½, 4, 4½, 5, 5½, 6, 7, 8,
9, 10, 11, 11½, 12, 13, 14, 15,
16, 18, 20, 22, 24, 26, 27, 28, 30
and 32; wt. each 2 oz. 1.50

One in a box.

SCREW PITCH GAGES

STARRETT



For U.S.
and S.A.E.
Standard
Threads

Equipped also with center gage with coarse and fine notch.

Each
No. 155—27 pitches, threads per inch,
2 1/4, 2 3/8, 2 1/2, 2 5/8, 2 3/4, 2 7/8, 3,
3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 6, 7, 8,
9, 10, 11, 12, 13, 14, 16, 18, 20,
24 and 28; wt. each 2 1/2 oz....\$2.00

One in a box.



For Whitworth
Standard
Threads
Only

Each
No. 7—26 pitches, threads per inch,
4, 4 1/2, 5, 6, 7, 8, 9, 10, 11, 12,
13, 14, 16, 18, 19, 20, 22, 24, 25,
26, 28, 30, 32, 40, 48, 60; wt.
each 2 oz.....\$1.50

One in a box.

BROWN & SHARPE



For U.S. Standard and V American
National Threads

Threads 11 1/2 and 27 are pipe threads.
Equipped with blade lock.

Each
No. 633—51 pitches, threads per
inch, 4, 4 1/2, 5, 5 1/2, 6, 7, 8, 9,
10, 11, 11 1/2, 12, 13, 14, 15, 16,
18, 20, 22, 24, 26, 27, 28, 30,
32, 34, 36, 38, 40, 42, 44, 46,
48, 50, 52, 54, 56, 58, 60, 62, 64,
66, 68, 70, 72, 74, 76, 78, 80, 82
and 84\$2.75

One in a box.

DEPTH GAGES

LUFKIN

For die makers, ma-
chinists, etc.

Case hardened steel
heads, 2 1/2 inches at base
and 1/8 inch thick.

Spring tempered rule,
1/8 inch wide, marked
32nds and 64ths can be
clamped at any point in
head.

Each

No. 510—6 inch nar-
row rule; wt. each
2 oz\$1.50

Round Graduated Blade
or Rod

Case hardened steel
heads, 2 1/2 inches wide at
base and 1/8 inch thick.

Tempered round steel
rod, 1/8 inch diameter gradu-
ated 4 inches in 32nds.
Can be clamped at any
point in head.

Each

No. 512—6 inch round
rod; wt. each 2 oz.....\$1.50

Combination Depth Gage
and Protractor

Case hardened head 2 1/2
inches at base, 1/8 inch
thick. One side head mark-
ed 30, 45 and 60 degrees.

Spring tempered steel
rule, marked 32nds and
64ths. Clamped at any
point in head.

Each

No. 511—6 in. narrow
rule; wt. each 2 oz.\$2.25
No. H511—With 6 in.
narrow hook rule.. 2.75

STARRETT

Case hardened steel head, 2
inches wide at base, 1/8 inch
thick.

Spring tempered steel rule,
1/8 inch wide marked 32nds and
64ths of an inch, can be clamp-
ed at any point in head. Can
also be furnished graduated in
64ths and 100ths of an inch.

Each

No. 237—6 in. narrow
rule, 2 oz.....\$1.50

With Round
Rod

Rod can be
clamped at
any point in
stock, also
close to end.

Rod not
graduated.

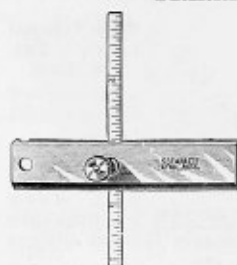
Nos.	Each	Lgth. stock,		Wt.
		in.	in.	
45A	\$0.90	3 1/2	3 1/2	2
45B	1.40	6	6	4
45C	1.65	6	10	6

All above, one in a box.

DEPTH GAGES

STARRETT

Spring temper-
ed rule, 1/8 in.
wide, marked in
32nds and 64ths.
Can also be
furnished in
64ths and 100ths
of an inch. Rule
can also be
clamped close to
end.



Nos.	Each	Rule, in.	Lgth. stock,		Wt.
			in.	ea., oz.	
46A	\$1.50	4	3 1/2	2	
46B	1.80	6	3 1/2	4	
46C	1.80	4	6	6	
46D	2.10	6	6	6 1/2	
46E	2.70	6	10	7	

Micrometer

Designed for measuring
depth of grooves, holes or
irregular parts. Has a 1/2
inch movement of screw
reading in thousandths, with
two 1/2 in. and one 1 in. col-
lar to slip off or on the spin-
dle, 2 1/2 in. reading in thou-
sandths. Hardened point on
rod, base 1/8 inch thick.

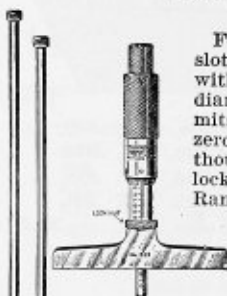


Nos.	Each	Case, each	Base, in.	Wt. ea., oz.
446A	\$7.75	\$1.25	2 1/4	5
446B	8.50	2.00	4	8

LUFKIN

Micrometer

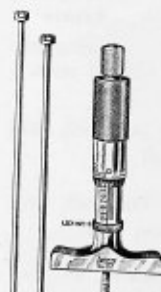
For measuring holes,
slots, etc. Equipped
with three rods 1/8 in.
diameter which per-
mits measuring from
zero to 3 inches by
thousandths. Can be
locked at any point.
Range 0 to 3 inch.



Nos.	Each	Base, in.	Wt. ea., oz.
513	\$10.50	3	6
515	13.50	5	10

Micrometer
One Inch Movement

For use in very small
holes and slots. Rapid
reading. Each thou-
sandth numbered. Lock
nut permits the reading
to be maintained. Meas-
uring rod 3/8 inch diam-
eter; base 2 inches.
Range 0 to 3 inch.



Each
No. 212—Wt. each
14 oz\$9.00
With ratchet stop 9.50

All above, one in a box.

DRILL POINT GAGES

STARRETT



Adjustable
Arm sets
at 59° angle, the
proper angle for
twist drill
points.

Blade graduated in 8ths, 16ths, 32nds
and 64ths of an inch.

No. 22A—Length blade 12 in.; wt.
each 12 oz.\$4.90
One in a box.

LUFKIN



Blade at one end is 59° proper angle for
drill points, other end 41° angle for
countersinks only.

Blade is 4½ inches long and the bevel
ends are graduated in 64ths of an inch.
Blade is clamped in head by thumb screw.

No. 26D—Weight each 6 oz.\$2.90
No. 26E—Blade only 1.25

One in a box.

CENTER GAGES

LUFKIN



Used in
grinding and
setting screw
cutting tools.
Also gives

tap drill size for sharp V threads.
Nos. 36, 37 spring tempered; Nos. 036,
037 not tempered.

Nos.	Each	Thread	Degrees
36	\$0.50	USS	60
036	.40	USS	60
37	.50	Whitworth	55
037	.40	Whitworth	55

Six in a box.

STARRETT



Used in
grinding and
setting screw
cutting tools.
Graduated in

14ths, 20ths, 24ths and 32nds of an inch.
Nos. 390, 395, not tempered; Nos. 391,
396 spring tempered.

Nos.	Each	Thread	Degrees
390	\$0.40	USS	60
391	.50	USS	60
395	.40	Whitworth	55
396	.50	Whitworth	55

Six in a box.

SCREW THREAD GAGES

BROWN & SHARPE



No. 715 Gage.



Tool Setting Gage.

same depth of square thread but is
stronger.

The sides are at an inclination of 14½°
or 29° included angle, which angle is the
same as is now generally adapted in cut-
ting worms. A tool setting gage is fur-
nished.

No. 715—Weight 2 oz.\$3.30
Six in a box.

Acme Standard
Hardened 29
Degrees

Furnishes a
correct stand-
ard to which
thread tools
can be ground
to cut threads
of a uniform
angle to take
the place of
square threads,
and to stand-
ardize the
threads of var-
ious angles and
depths now in
use. The Acme
thread has the
same depth of square
thread but is
stronger.

Acme Standard
Hardened
29 Degrees



Furnishes a correct
standard to which
tools can be ground
to cut threads
of a uniform
angle to take place of
square threads.

Acme thread has the
same depth as the
square thread, but as
the sides are at an in-
clination of 14½° (29° included angle)
this form of thread is stronger.

No. 716—Weight each 1½ oz.\$3.00
Twelve in a box.

SHEET METAL GAGES

BROWN & SHARPE



No. 694—Weight each 2 oz.\$3.00

U. S.
Standard
Hardened

For uncoated
sheet and plate
iron steel.

Gage is based
on weights
in ounces per
square foot.

Decimal
equivalents (approx.) on other side.

No. 694—Weight each 2 oz.\$3.00

Six in a box.

WIRE GAGES

BROWN & SHARPE



No. 688
Gage Nos. Each
0-36 \$3.00
5-36 3.25

Six in a box.

American
Standard
Hardened

For gaging
non-ferrous
metal as cop-
per, brass,
aluminum,
etc. Decimal
equivalents on
reverse side.



No. 690

Gage Nos. Each
0-36 \$3.00
5-36 2.50

English
Standard

Hardened
same as stubs
iron wire or
Birmingham
gage.

For iron
wire, hot and
cold rolled
sheet steel
and in some
cases for gag-
ing sheet iron. Decimal equivalents on
other side.



No. 692—Weight each 4 oz.\$3.00

Washburn
and Moen
Standard
0 to 36

Also known
as U. S. steel
wire gage.

Hardened.
For measur-
ing wire and
drill rod. U.
S. Bureau of
Standards
and principal wire manufacturers desig-
nate this as the steel wire gage.

No. 692—Weight each 4 oz.\$3.00
Six in a box.

American
S. & W. Co's
Standard
Hardened
000000 to 33

Carries all
sizes for meas-
uring and
checking steel
music or
piano wire.
Decimal
equivalents
on reverse
side.



No. 690—Weight each 2 oz.\$3.00

Six in a box.

CALIPERS AND WIRE GAGES

BROWN & SHARPE



English or Birmingham Standard 1 to 32

Used in selecting iron, steel, sheet stock etc.

5 3/4 inches long, 1/2 inch thick. Can be drawn apart to measure 4 inches. Tongue graduated on front side in 32nds of an inch only.

Each
No. 677—Wt. each 5 oz.\$16.00
One in a box.

U. S. Standard for Sheet and Plate Iron and Steel 1 to 32

Tongue graduated on front side only in 32nds of an inch.

Same as above but U. S. Standard.

Each
No. 680—Weight each 5 oz.\$16.00
One in a box.

ROLLING MILL CALIPER GAGES

BROWN & SHARPE



Drop Forged Tool Steel

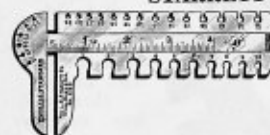
Used on heavy class of work in measuring sheet iron

and steel in rolling mills.

Length 5 1/2 inches long, 1/2 inch thick, jaws 2 1/2 inch deep and can be drawn apart 4 inches. Tongue graduated on one side 32nds of an inch.

Each
No. 674—Weight each 5 oz.\$12.00
One in a box.

STARRETT



For Use in Steel Mills Size 1 to 30.

For use in rolling mills. Opening 4 inches,

depth of jaws, 1 1/2 inches, width 1 1/2 inches.

Graduations first inch 32nds, remainder 16ths of an inch.

Nos.	Each	Kind
293A	\$16.00	English or Birmingham Standard.
293B	16.00	U. S. Standard.

One in a box.

BROWN & SHARPE



U. S. Standard

For sheet and plate iron and steel.

Adopted by Congress March 3, 1893.

Each
No. 685—000 to 25 gage.\$4.00
Six in a box.



English or Birmingham Standard

For gaging iron wire, hot and cold rolled sheet steel, also in some cases for sheet iron.

Each
No. 684—000 to 25 gage\$4.00
Six in a box.

DRILL GAGES

STARRETT



Time Saver, Tap and Drill Hardened and Polished

Has table giving regular machine screw tap sizes, also proper drill size for same.

Size 6 1/4 inches long, 2 1/2 inches wide, 1/2 inch thick.

Each
No. 185—1 to 60 gage;
wt. each 6 oz.\$2.40

Three in a box.



Jobbers, Drill Hardened Polished Steel

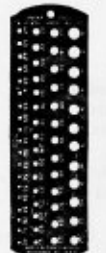
Shows sizes from 1/8 to 1/2 inch. Varying by 64ths.

Size, 6 1/4 in. long, 2 1/2 inch wide, 1/2 in. thick.

Each
No. 187—Weight each 5 oz.\$2.75

Three in a box.

BROWN & SHARPE



Drill and Wire Hardened

For drills and steel drill rods.

Length 5 1/4 inches, 1 1/2 inch wide, 1/2 inch thick.

Gage numbers and decimal equivalents.

Each
No. 705—1 to 60 gage;
wt. ea. 3 1/2 oz.\$2.00
Six in a box.



Hardened

Length 2 inches, 3/4 inch wide, 1/2 inch thick.

Each
No. 705—61 to 80 gage; wt. each 1/2 oz.\$2.40

Note—Specify what No. 705 gage is wanted.
Six in a box.

SCREW AND WIRE GAGES

BROWN & SHARPE POCKET



Front side for American Standard and screws old style from 0 to 30 and to measure diameter of wires or screws from 1/8 to 3/8 in.

Other side to measure old or English wire gage from 17 to 0000

and to measure the new or American wire gage from 15 to 0000.

Length 4 inches, 1 1/2 inch wide, 3/4 inch thick.

Each
No. 700—Weight each 1 oz.\$3.00

Six in a box.

MACHINISTS' BEVELS

STARRETT

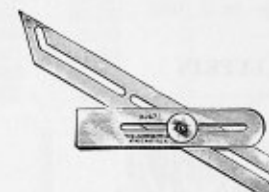


Universal Offset Blade

For gear work, any angle however slight can be obtained.

One end of case is solid, a rest is formed under blade where thin templates may be placed.

Each
No. 15—Wt. each 2 1/2 oz.\$2.25



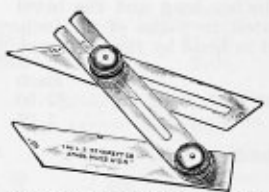
Improved

Blade and stock slotted thus admitting adjustments that cannot be obtained with a common bevel. Clamp screw head.

mon bevel. Clamp screw head.

No. 47

Blade, In.	Each	Stock, in.	Wt. ea., oz.
6	\$2.25	3 1/2	4
9	2.75	4 3/4	7
12	3.75	6	10



Combination with Auxiliary Blade

Has a stud riveted in straight edge stock or head on which its split blade is hinged, so as to swing over the stock and be clamped at any angle. Length of stock 4 inches.

Each
No. 49—Weight each 4 oz.\$2.50

LUFKIN UNIVERSAL



Blade can be set even at slightest angle. 3 inch arm, 3 inch stock.

Equipped with spring for tension. Knurled nut locks blade.

Each
No. 66—Weight each 2 ozs.\$2.25



Blade has straight and offset slots allowing many adjustments and angles. 3 1/2 inch stock, 6 inch blade. Spring tension. Knurled nut.

Each
No. 67—Weight each 4 oz.\$2.25

All above, one in a box.

BEVEL PROTRACTORS

LUFKIN

Graduated 0 to 180 Degrees Both Ways

Rectangular head gives four working surfaces. Blade fastened by nut.

Each
No. 891—6 in. blade; wt. 3 oz.....\$3.00
One in a box.

Graduated 0 to 180 Degrees Both Ways

Rectangular head gives four working surfaces. Narrow 6 inch rule graduated in 32nds and 64ths of an inch.

Each
No. 892—6 in. blade; wt. each 3 oz.....\$3.00
One in a box.

Graduated 0 to 180 Degrees Both Ways

Used for setting Nos. 66 and 67 bevels.

Each
No. 893—Wt. each 2 oz.....\$1.75
One in a box.

STARRETT

Graduated 0 to 180 Degrees Both Ways

By means of a patent lock the

joint is set firmly by a slight turn of the nut. Back of tool is flat. Accurate for transferring angles, as a small T square or for a large number of other uses.

Each
No. 19—6 inch blade; wt. each 4 oz.\$2.50
One in a box.

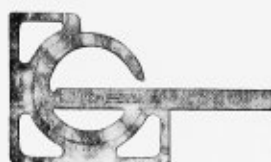
Graduated 0 to 90 Degrees Both Ways

Used for setting Nos. 15, 47 or 49 bevels at any desired angle, thus converting them into bevel protractors at slight cost.

Each
No. 193—Wt. each 3 oz.....\$1.75
Two in a box.

BEVEL PROTRACTORS

BROWN & SHARPE



Can be quickly set to any angle used either side up and on either of the two outside edges of the frame.

Vernier reads to five minutes.

Forms a convenient extension of a T square and frequently takes the place of 45° and 60° triangles.

Length of blade 8½ inches.

Each
No. 510—Wt. each 5 oz.....\$13.50
Leather CaseExtra 3.00
One in a box.

STARRETT UNIVERSAL



Acute Angle Attachment

Any given angle may be laid off or measured by setting the stock at that

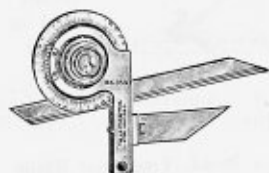
angle by the graduated disc.

Disc is graduated from zero to 90° each way.

Blade ½ inch wide, stock 4 inches long. Blade is clamped by eccentric stud against end of disc.

Nos.	Each	In leather case, each	Length blade, in.
360A	\$13.50	.....	7
360B	.....	\$15.75	7
360C	14.75	.....	12
360D	.....	17.75	12
360E	15.50	.....	7 and 12
360F	.....	18.50	7 and 12
360G—Angle attachment.....	Each \$3.00		

One in a box.



Improved Universal

With extremely fine adjustment. Same as No. 360 above except the dial is graduated to degrees the entire circle and is equipped with vernier and has encased a positive method for fine adjustments. Controlled from the center on the front side of the tool.

Each
No. 359A—Wt. each 4 oz.....\$22.50
No. 359B—Wt. each 4 oz.....\$24.50
No. 359C—Wt. each 4 oz.....23.75
No. 359D—Wt. each 4 oz.....26.75
No. 359E—Wt. each 4 oz.....24.50
No. 359F—Wt. each 4 oz.....27.50

Nos.	Each	In leather case, each	Length blade, in.
359A	\$22.50	.....	7
359B	.....	\$24.50	7
359C	23.75	.....	12
359D	.....	26.75	12
359E	24.50	.....	7 and 12
359F	.....	27.50	7 and 12

One in a box.

BEVEL PROTRACTORS

STARRETT

An adjustable rule held firmly at any point by a thumb nut passing through a revolving turret which is graduated in degrees both right and left and can be accurately adjusted to show any angle.

Hardened Blade Level in Head



Blade graduated with heavy figures. No. 4 graduations, 8ths, 16ths, 32nds and 64ths. Turret graduated from 0 to 180 degrees.

No. 12

Length blade, in.	Each	Length blade, in.	Each
9	\$4.50	18	\$6.00
12	4.90	24	6.90

Head Only with level.....Each \$3.00

Note—Head of 9 inch blade does not fit 12, 18 or 24 inch blade.

One in a box.

LUFKIN



Tempered Blade Level in Head

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths. Turret graduated from 0 to 90 degrees.

No. 5

Length blade, in.	Each	Length blade, in.	Each
9	\$4.50	18	\$6.00
12	4.90	24	6.90

Head Only with level.....Each \$3.00

One in a box.

No. 6 REVERSIBLE HEAD

Length blade, in.	Each	Length blade, in.	Each
9	\$5.70	18	\$7.20
12	6.10	24	8.10

Head Only with level.....Each \$4.20

One in a box.

BROWN & SHARPE



Tempered Blade Level in Head

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths. Turret graduated 0 to 90.

No. 450

Length blade, in.	Each	Length blade, in.	Each
9	\$4.50	18	\$6.00
12	4.90	24	6.90

Head Only with levelEach \$3.00

No. 456 Reversible Head

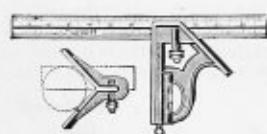
Length blade, in.	Each	Length blade, in.	Each
9	\$5.70	18	\$7.20
12	6.10	24	8.10

Head Only with levelEach \$4.20

One in a box.

COMBINATION SQUARES

STARRETT



Tempered
Blade
Level in
Head

Japanned
head with
level.

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

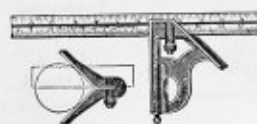
No. 11 With Center Head

Length, inches	Each	Length, inches	Each
4	\$2.10	12	\$3.60
6	2.40	18	4.50
9	3.00	24	5.40

No. 11 Without Center Head

Length, inches	Each	Length, inches	Each
4	\$1.50	12	\$3.00
6	1.80	18	3.90
9	2.40	24	4.80

Note—No level in head of 4 inch. Unless otherwise specified, square with center heads will be sent.



Drop
Forged
Head
Hardened
Blade
Level in
Head

Heavy figure graduations on blade reading both ways. Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

No. 33 With Center Head

Length, inches	Each	Length, inches	Each
4	\$3.80	12	\$6.20
6	4.60	18	7.30
9	5.30	24	8.20

No. 33 Without Center Head

Length, inches	Each	Length, inches	Each
4	\$2.30	12	\$4.30
6	3.10	18	5.40
9	3.40	24	6.30

Note—No level in head of 4 inch. Unless otherwise specified, squares with center heads will be sent.

STARRETT SETS



Tempered
Blade
Level in
Head

Made up
with No. 11
combination
square with

No. 12 bevel protractor head. Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

No. 9

Length, inches	Each	Length, inches	Each
9	\$6.00	18	\$7.50
12	6.60	24	8.40

All above, one in a box.

COMBINATION SQUARES

STARRETT SETS



Drop
Forged
Heads
Hardened
Blade
Level in
Head

Made up with No. 33 combination square with No. 492 bevel protractor head, same as No. 12 but with smooth finish. Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

No. 433

Length, inches	Each	Length, inches	Each
9	\$8.30	18	\$10.30
12	9.20	24	11.20

LUFKIN



Without
Center
Heads
Level in
Head

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths.

No. 25 Cast Head, Tempered Blades

Length, inches	Each	Wt. ea., oz.	Length, inches	Each	Wt. ea., oz.
4	\$1.50	4	12	\$3.00	17
6	1.80	6	18	3.90	22
9	2.40	10	24	4.80	26

No. 35—Drop Forged Head,
Hardened Blade

Length, inches	Each	Wt. ea., oz.	Length, inches	Each	Wt. ea., oz.
4	\$2.30	4	12	\$4.30	19
6	3.10	7	18	5.40	24
9	3.40	11	24	6.30	28

Note—No level in head of 4 inch.



With Center
Heads
Level in
Head

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths.

No. 25C Cast Head, Tempered Blade

Length, inches	Each	Wt. ea., oz.	Length, inches	Each	Wt. ea., oz.
4	\$2.10	5	12	\$3.60	21
6	2.40	8	18	4.50	26
9	3.00	13	24	5.40	30

No. 35C Drop Forged Head
Hardened Blade

Length, inches	Each	Wt. ea., oz.	Length, inches	Each	Wt. ea., oz.
4	\$3.80	5	12	\$6.20	21
6	4.60	9	18	7.30	26
9	5.30	13	24	8.20	30

All above, one in a box.

COMBINATION SQUARES

LUFKIN SETS

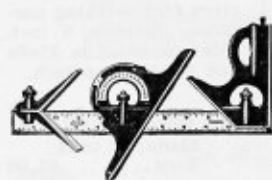


Tempered
Blade
Level in
Head

Made up
with No. 25C
combination
square and
No. 05 bevel
protractor head. Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

No. 525 Protractor Head—Not Reversible

Length, inches	Each	Wt. ea., oz.	Length, inches	Each	Wt. ea., oz.
9	\$6.00	24	18	\$7.50	35
12	6.60	30	24	8.40	39



Drop Forged
Head
Hardened
Blade
Level in
Head

Made up
with No. 35C
combination
square and 06 bevel protractor head. Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

No. 635 Protractor Head—Reversible

Length, inches	Each	Wt. ea., oz.	Length, inches	Each	Wt. ea., oz.
9	\$9.50	27	18	\$11.50	39
12	10.40	34	24	12.40	43

BROWN AND SHARPE



Drop Forged
Head
Tempered
Blade
Level in
Head

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths of an inch.

No. 400

Length, inches	Each	Length, inches	Each
6	\$4.60	18	\$7.30
9	5.30	24	8.20
12	6.20		

BROWN & SHARPE SETS



Drop Forged
Square and
Center Heads
Tempered
Blade
Level in
Head
Reversible
Protractor

Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths.

No. 438

Length, inches	Each	Length, inches	Each
9	\$9.50	18	\$11.50
12	10.40	24	12.40

All above, one in a box.

COMBINATION SQUARES

STARRETT HEAVY



Hardened Blade Level in Head

Blade $1\frac{1}{2}$ in. wide, $\frac{7}{16}$ inch thick. Stock $8\frac{1}{4}$ inches long.

5 inch mitre. Blade No. 4 graduations 8ths, 16ths, 32nds and 64ths.

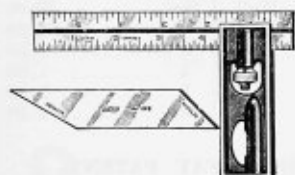
No. 8 Without Center Heads

Length, in.	18	24
Each	\$7.50	9.00
Center head extra.....	Each	\$2.25

One in a box.

MACHINISTS' STEEL SQUARES

LUFKIN DOUBLE



Tempered Blades

Level in 6 inch head. No. 4 graduations. Adjustable blades.

No. 26A—With Sliding Back Only

Length, in.	Each	Wt. each, oz.
4	\$1.85	3
6	2.85	6

No. 26B—Graduated and Bevel Blades

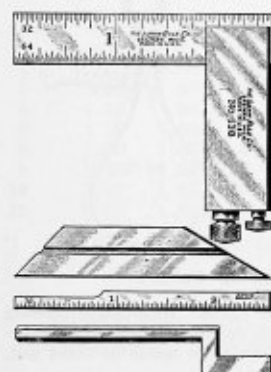
Length, in.	Each	Wt. each, oz.
4	\$2.35	4
6	3.45	8

No. 26C—Graduated, Bevel and Drill Grinding Blades

Length, in.	Each	Wt. each, oz.
6	\$4.70	8

One in a box.

LUFKIN DIE MAKERS'



Hardened Head and Ground Blades

Standard blade graduated 32nds and 64ths, $2\frac{1}{4} \times \frac{1}{2}$ inch.

Bevel blade gives 30 and 45 degree angles.

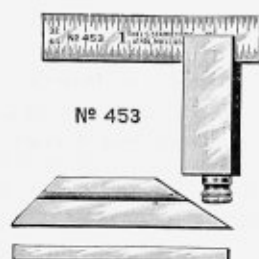
Narrow blade ungraduated. $2\frac{1}{2}$ in. long $\frac{1}{2}$ in. wide.

Nos.	Each	With Blades
138A	\$4.00	Standard
138B	4.30	Standard & Bevel
138N	4.50	Standard & Narrow
138C	4.80	Standard, Narrow and Bevel
138CX	5.80	Standard, Narrow, Bevel and Offset

One in a box.

MACHINISTS' STEEL SQUARES

STARRETT DIE MAKERS'



No. 453

No. 4 graduations on blade. Bevel blade has 30 and 45° angles.

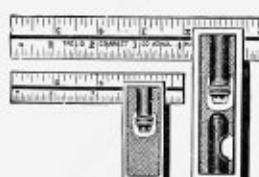
Blade can be set at angle with the beam.

Graduated blade.

Nos.	Each	Blades
453A	\$4.00	Square Only
453B	4.30	Square with Either Narrow or Bevel Blades
453C	4.60	Square with Narrow and Bevel Blades

One in a box.

STARRETT DOUBLE



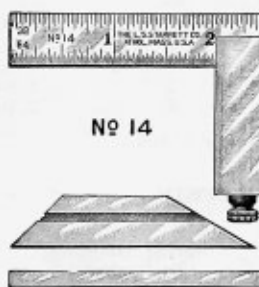
Hardened Blade Level in Stock

A very practical square for machinists, tool makers, pattern makers, etc. No level in 4 inch size. Blade graduated in 8ths, 16ths, 32nds and 64ths of an inch. Angle blade hexagon one end octagon other end.

No. 13

Lgth., in.	Each	Blades
4	\$1.85	Square Only
6	2.85	Square Only
9	3.60	Square Only
12	4.75	Square Only
4	2.35	Square & Angle Blade
6	3.45	Square & Angle Blade

One in a box.



No. 14

Hardened Head and Blades

Designed for tool makers.

Length graduated scale $2\frac{1}{2}$ inches.

Graduations 8ths, 16ths, 32nds and 64ths.

Narrow

blade $\frac{1}{8}$ inch wide. 30 and 45 degree on angle blade.

Nos.	Each	Blades
14A	\$3.25	Square Only
14B	3.55	Square with Either Narrow or Bevel Blade
14C	3.85	Square with Narrow and Bevel Blade

Large Size

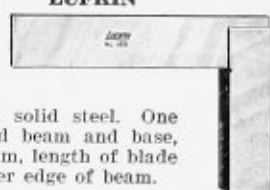
$2\frac{1}{4}$ inch stock, 4 inch graduated blade.

Nos.	Each	Blades
14D	\$4.00	Graduated
14E	4.50	Graduated & Bevel

One in a box.

MACHINISTS' STEEL SQUARES

LUFKIN



Hardened solid steel. One piece lapped beam and base, grooved beam, length of blade is from inner edge of beam.

No. 166

Length Blade, in.	Each	Length beam, in.	Wt. each, oz.
$1\frac{1}{2}$	\$3.60	$1\frac{1}{8}$	$1\frac{1}{2}$
3	4.50	$2\frac{1}{8}$	$4\frac{1}{2}$
$4\frac{1}{2}$	6.00	$3\frac{1}{8}$	10
6	9.00	$4\frac{1}{8}$	16

One in a box.

STARRETT THIN STEEL TRY



For Machinists and Draftsmen

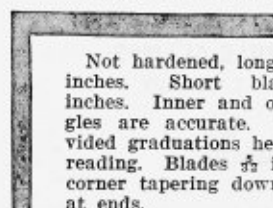
No. 21

Size, in.	Each	Thickness, in.	Graduated
2x1	\$2.10	$\frac{1}{32}$	16ths, 32nds, 64ths
3x2	2.70	$\frac{1}{32}$	16ths, 32nds, 64ths
4x3	3.60	$\frac{1}{16}$	16ths, 32nds
6x4	5.10	$\frac{1}{8}$	16ths, 32nds
8x6	6.60	$\frac{1}{4}$	16ths, 32nds
10x8	8.10	$\frac{1}{2}$	16ths, 32nds
12x8	9.60	$\frac{3}{4}$	16ths, 32nds

One in a box.

MILLWRIGHTS' SQUARES

BROWN & SHARPE



Not hardened, long blade, 24x2 inches. Short blade, 18x1 $\frac{1}{2}$ inches. Inner and outer 90° angles are accurate. Machine divided graduations heavy for easy reading. Blades $\frac{5}{16}$ inch thick at corner tapering down to $\frac{1}{16}$ inch at ends.

No. 550—Wt. each 2 lbs.....\$17.00

One in a package.

MECHANICS' REFERENCE TABLES

LUFKIN



Flexible Spring Steel

Size 6 $\frac{1}{4}$ x1 $\frac{1}{4}$ inches. One side tables of U.S., A.S.M.E., S.A.E. and Briggs pipe standard. Standard machine screw tap and drill sizes, other side decimal equivalents $\frac{1}{16}$ to $\frac{1}{2}$.

No. 97 $\frac{1}{2}$ —Wt. each 2 oz.....\$0.90

One in a box.

MACHINISTS' TOOL SETS

LUFKIN



For Students,
Apprentices
and Mechanics

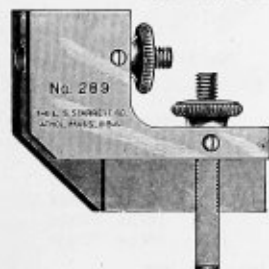
Contains 8 tools
as follows, one
each No. 25C — 6
inch combination
square, No. 71C
center punch, No.
2110—6 inch steel
rule, No. 036 center
gauge, No. 17—4
inch Hermaphrodite,
No. 40—4 inch
spring divider, No.
41—4 inch outside
spring caliper, No.
42—4 inch inside
spring caliper.

Each
No. 1—Wt. per set 1½ lbs. \$8.75

One set in a box.

COMBINATION SQUARE
ATTACHMENTS

STARRETT



Made to fit
12, 18 and
24 inch
blades of
our Nos. 11,
23 and 33
squares.
Also can be
used with
regular
rules as
wide as 1
inch or
with our
No. 21 flat
steel square.

Nos.	Each	Size, in.
289A	\$1.00	1½ x 1½
289B	1.25	2½ x 2½

Four in a box.

RULE CLAMPS

STARRETT



Used to
clamp two
steel rules
together to
make one
long rule of
widths up to
1¼ inch.

Each
No. 299—Length 2½ inches; wt.
each 2 oz. \$0.60

Four in a box.

KEY SEAT CLAMPS

STARRETT



Used with
any com-
mon steel
scale, mak-
ing same in-
to a key
seat rule.

Per pair
No. 298—Case hardened \$0.75

One pair in a box.

CALIPERS AND DIVIDERS

STARRETT

Spring Dividers
Toolmakers'
Round Leg Pattern

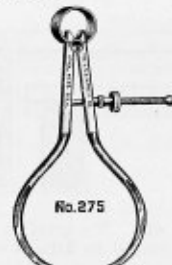
Highly polished, harden-
ed fulcrum stud. Unusual-
ly stiff spring that insures
rigidity of the legs and
gives uniform pressure.

No. 277—With Solid Nut

Lgth., ins.	Each	Lgth., ins.	Each
2	\$1.20	5	\$1.80
3	1.50	6	2.10
4	1.80		

Two in a box.

STARRETT

Spring Calipers, Toolmakers'
Round Leg Pattern

Highly polished, hardened
fulcrum stud. Unusually stiff spring that insures
rigidity of legs and gives uniform pressure.

Solid Nut

No. 274 Inside		No. 275 Outside	
Lgth., ins.	Each	Lgth., ins.	Each
2	\$1.20	2	\$1.20
3	1.50	3	1.50
4	1.80	4	1.80
5	1.80	5	1.80
6	2.10	6	2.10

Two in a box.

LUFKIN

Spring Dividers
Toolmakers'
Round Leg Pattern

Highly polished. Stiff
flat bow spring, parts most
subject to wear are hard-
ened.

Legs are nicely tapered
by swaging.

No. 140—With Solid Nut

Lgth., ins.	Each	Lgth., ins.	Each
2	\$1.20	5	\$1.80
3	1.50	6	2.10
4	1.80		

Two in a box.

CALIPERS AND DIVIDERS

LUFKIN



No. 142

No. 141

Spring Calipers, Solid Nut Toolmakers',
Round Leg Pattern

Highly polished, stiff flat bow spring
tapered legs, wearing parts hardened.

No. 142 Inside		No. 141 Outside	
Lgth., ins.	Each	Lgth., ins.	Each
2	\$1.20	2	\$1.20
3	1.50	3	1.50
4	1.80	4	1.80
5	1.80	5	1.80
6	2.10	6	2.10

STARRETT—FAY PATENT

Spring Dividers

Polished, stiff spring, au-
tomatic closing spring nut.
Also made in solid nut.



No. 77 Spring Nut		No. 77 Solid Nut	
Lgth., ins.	Each	Lgth., ins.	Each
2½	\$1.40	2½	\$1.20
3	1.40	3	1.20
4	1.70	4	1.50
5	1.70	5	1.50
6	2.10	6	1.95
8	2.40	8	2.25



Spring Caliper

Polished, stiff spring, automatic closing
spring nut which releases itself when pres-
sure is withdrawn, also made in solid nut.

No. 74 Inside			No. 75 Outside		
Lth., in.	Sprg. Nut, each	Solid Nut, each	Lth., in.	Sprg. Nut, each	Solid Nut, each
2½	\$1.40	\$1.20	2½	\$1.40	\$1.20
3	1.40	1.20	3	1.40	1.20
4	1.50	1.35	4	1.50	1.35
5	1.50	1.35	5	1.50	1.35
6	1.80	1.65	6	1.80	1.65
8	2.10	1.95	8	2.10	1.95

All above, two in a box.

CALIPERS AND DIVIDERS

YANKEE



Spring Dividers

Polished steel, stiff flat spring bow.

Same as Fay divider but lighter in weight.

No. 83 Spring Nut		No. 83 Solid Nut	
Length, in.	Each	Length, in.	Each
2½	\$1.00	2½	\$0.80
3	1.05	3	.85
4	1.10	4	.90
5	1.15	5	1.00
6	1.20	6	1.05
8	1.50	8	1.35
10	1.80	10	1.65
12	2.00	12	1.80



Spring Calipers

Polished steel, stiff flat spring bow. No. 73 can be used as a transfer caliper same as Fay but lighter in weight.

No. 73 Inside			No. 79 Outside		
Lth., in.	Spring Nut each	Solid Nut each	Lth., in.	Spring Nut each	Solid Nut each
2½	\$1.00	\$0.80	2½	\$1.00	\$0.80
3	1.05	.85	3	1.05	.85
4	1.10	.90	4	1.10	.90
5	1.15	1.00	5	1.15	1.00
6	1.20	1.05	6	1.20	1.05
8	1.40	1.20	8	1.40	1.20
10	1.80	1.65	10	1.80	1.65
12	2.00	1.80	12	2.00	1.80

All above, three in a box.

PARTS FOR ABOVE YANKEE CALIPERS AND DIVIDERS

Item	Each
Screw and ball.....	\$0.20
Thumb attachment (No. 83 only) ..	.20
Solid Nut .....	.15
Spring nut .....	.30
Leg, right .....	.30
Spring .....	.30
Jam washer .....	.15
Fulcrum stud .....	.15
Stud .....	.15
Leg, left with screw.....	.50

CALIPERS AND DIVIDERS

BANNER



Spring dividers. Polished steel, hardened points. Stiff flat spring bow.

Quick nut designed for making quick adjustments. On release of pressure this nut slides freely over threads of the screw, but on slightest leg pressure, grips screw firmly.

No. 50 Quick Nut		No. 40 Solid Nut	
Length, in.	Each	Length, in.	Each
2½	\$1.00	2½	\$0.80
3	1.05	3	.85
4	1.10	4	.90
5	1.15	5	1.00
6	1.20	6	1.05
8	1.50	8	1.35



No. 42-52



No. 41-51

Spring Calipers

Polished steel, hardened points. stiff flat spring bow. No. 42 can be used as a transfer caliper. Quick and solid nuts.

Quick Nut			Solid Nut		
Lth., in.	No. 52 each	No. 51 each	Lth., in.	No. 42 each	No. 41 each
2½	\$1.00	\$1.00	2½	\$0.80	\$0.80
3	1.05	1.05	3	.85	.85
4	1.10	1.10	4	.90	.90
5	1.15	1.15	5	1.00	1.00
6	1.20	1.20	6	1.05	1.05
8	1.40	1.40	8	1.20	1.20

YANKEE

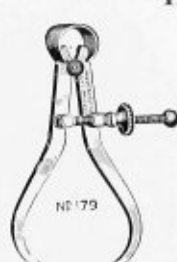


No. 80 Spring Nut		No. 80 Solid Nut	
Length, in.	Each	Length, in.	Each
3	\$1.20	3	\$1.05
4	1.30	4	1.10
5	1.35	5	1.15

All above, three in a box.

CALIPERS

YANKEE



Spring Thread

Polished steel, stiff flat spring bow. These calipers are used for measuring the diameter of bottom of threads on screws.

No. 179 Spring Nut		No. 179 Solid Nut	
Length, in.	Each	Length, in.	Each
4	\$1.10	4	\$0.90
5	1.15	5	1.00
6	1.20	6	1.05



Spring Thread

Polished steel, stiff flat spring bow.

These calipers are used for measuring the diameter at bottom of internal thread, inside of nuts, etc.

No. 184 Spring Nut		No. 184 Solid Nut	
Length, in.	Each	Length, in.	Each
4	\$1.10	4	\$0.90
5	1.15	5	1.00
6	1.20	6	1.05

All above, three in a box.

LUFKIN



Firm Joint

Polished steel. Adjustable tension. Sizes refer to legs. Actual capacity one-quarter greater than leg lengths.

Size inches	No. 12 each	No. 11 each	Wt. ea., oz.	No. in a box
3	\$0.50	\$0.50	1	6
4	.60	.60	1	6
5	.70	.70	2	6
6	.80	.80	3	6
8	1.00	1.00	5	3
10	1.10	1.10	7	3
12	1.20	1.20	11	3
14	1.80	1.80	14	2
16	2.10	2.10	20	2
18	2.55	2.55	24	2
20	3.00	3.00	36	2
24	3.60	3.60	44	1
30	....	6.00	96	1
36	....	7.20	120	1

CALIPERS STARRETT



Improved Firm Joint

Polished steel, joint tightened by means of a screw.

Sizes referred to are lengths of legs, their capacity is one-third greater than size of leg.

Size, inches	No. 27 each	No. 26 each	No. in a box
3	\$0.50	\$0.50	3
4	.60	.60	3
5	.70	.70	3
6	.80	.80	3
8	1.00	1.00	3
10	1.10	1.10	3
12	1.20	1.20	3
14	1.80	1.80	2
16	2.10	2.10	2
18	2.55	2.55	2
20	3.00	3.00	2
24	3.60	3.60	2
30	....	6.00	1
36	....	7.20	1

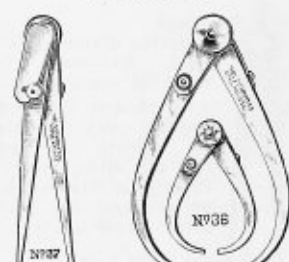


Lock Joint

Polished steel. Can be instantly adjusted to their full extent and as quickly locked firm in the joint and yet provided with a sensitive adjustment. The improvement consists in a socket joint made tapering. Spring washer under disc maintains tension.

Size, inches	No. 39 each	No. 38 each	No. in a box
4	\$1.10	\$1.10	3
5	1.15	1.15	3
6	1.20	1.20	3
8	1.50	1.50	3
10	1.80	1.80	3
12	2.10	2.10	3
14	2.40	2.40	2
16	2.70	2.70	2
18	3.00	3.00	2
20	3.30	3.30	2
24	4.20	4.20	2

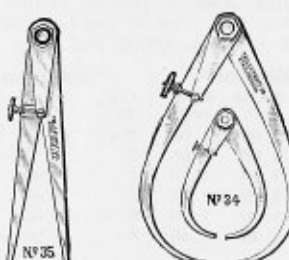
CALIPERS STARRETT



Lock Joint Transfer

Polished steel. Used inside of chambered cavities, over flanges, etc. Removed and replaced without losing the size calipered. Sizes referred to are the legs, the actual capacity is greater than leg length.

Size, inches	No. 37 each	No. 36 each	No. in a box
4	\$1.50	\$1.50	3
5	1.70	1.70	3
6	1.80	1.80	3
8	2.10	2.10	3
10	2.40	2.40	3
12	2.70	2.70	2
14	3.00	3.00	2
16	3.30	3.30	2
18	3.60	3.60	2
20	4.20	4.20	2
24	5.50	5.50	2



Firm Joint, Screw Adjusting

Polished steel. Made with screw adjustments for fine measurements. The improved joint may be set at any desired degree of uniform tension.

Size, inches	No. 35 each	No. 34 each	No. in a box
4	\$1.10	\$1.10	3
6	1.20	1.20	3
8	1.50	1.50	3
10	1.80	1.80	3
12	2.10	2.10	3
14	2.40	2.40	2
16	2.70	2.70	2
18	3.00	3.00	2
20	3.30	3.30	2
24	4.20	4.20	2
30	....	7.20	1
36	....	8.40	1

CALIPERS STARRETT

Double

Improved Firm Friction Joints

Used as a divider, inside calipers or outside calipers.

No. 44

Lgth., in.	Each
6	\$1.50
8	1.80

Three in a box.



BROWN & SHARPE

Combination

The arms or holders are provided with split chucks to receive the auxiliary legs. Held firmly by knurled nut. Length 10 inches.



Nos.	Description	Each
840	—Complete as shown.....	\$3.60
840A	—With divider legs only.....	2.40

One in a box.

STARRETT, HERMAPHRODITE

Firm Joint Adjustable Point



No. 41

Lgth., in.	Each	Lgth., in.	Each
4	\$0.80	8	\$1.20
6	1.00	10	1.45

Lock Joint Adjustable Point



No. 42

Lgth., in.	Each	Lgth., in.	Each
4	\$1.20	8	\$1.65
6	1.40	10	1.95

Firm Joint Adjustable Point Offset Leg



No. 243

Lgth., in.	Each
4	\$0.80
6	1.00

LUFKIN, HERMAPHRODITE

Firm Joint Adjustable Point



No. A17

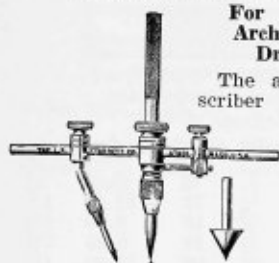
Lgth., in.	Wt. ea., oz.	Each
4	1 1/4	\$0.80
6	3	1.00
8	4	1.20

All above, three in a box.

DIVIDERS

STARRETT, UNIVERSAL

For Engineers,
Architects and
Draftsmen



The adjustable scriber holder is reversible and carries a fine tempered steel point or a pencil lead. With the holder turned outward, it is possible to work close to shoulders. Has a 4 inch beam for 7½ inch circle.

No. 89A



ward, it is possible to work close to shoulders. Has a 4 inch beam for 7½ inch circle.

No. 89A — Complete as shown above. \$2.50

No. 89S—Comprising No. 89A with-out cone center, No. 89D .075 diam. hole in place of bent arm, also with 89B in place of 89G. 2.40

One in a box.

Attachments for Above

Nos.	Description	Each
89B	Needle points.....	\$0.30
89C	Pen attachment.....	1.80
89D	Straight point & socket.....	.60
89E	Extra 13 inch beam.....	.30
89F	Coupling.....	.45
89G	Steel points.....	.15
89H	Tool and all above.....	6.00
Case for 89A or S.....	Extra	1.50
Case for 89H.....	Extra	2.50

STARRETT, EXTENSION

Improved



Equipped with auxiliary legs which, together with a common pencil for convenient combinations, adjusts from 7 to 9 inches and scribes circles 22 to 30. Calliper 11 to 13 in. inside, 14 to 16 in. outside.

Nos.	Length, in.	Description	Each
85A	7	With legs only.....	\$1.80
85B	9	With legs only.....	2.10
85C	7	Complete.....	3.00
85D	9	Complete.....	3.30
85E	12	With legs only.....	3.00
85F	12	Complete.....	4.20

One in a box.

BALL POINTS

STARRETT

For use with No. 85 dividers and Nos. 51 and 50 trammels. For use where it is necessary to use a hole for a center. Size each ball, ½, ¾, 1 and 1½ inch.



No. 88—With 4 balls..... \$1.50
Ball or holder.....Each .30
One set in a box.

DIVIDERS

STARRETT, EXTENSION



Adjustable Point
Tempered crucible forged steel points.
After fine adjustments are made leg is locked firmly.

No. 92

Length, in.	Each
6	\$1.45
7	1.55
8	1.65
9	1.75

Two in a box.

PENTO

Wing



Polished forged steel, wings are knurled to hold special point on thumb screw. Brass joints and hardened points.

No. 35

Size, in.	Per dozen	Wt. per doz., lbs.
6	\$11.50	3½
7	13.10	4½
8	14.30	4½
10	19.40	8
12	22.20	10

Six in a box.

SCRIBERS

GEM



Adjustable Steel Point

Polished stamped steel. Holds pencil also.

Length 3 inches.

No. 10—Wt. per dozen, 1 lb.....\$3.00

One dozen in a box.

PENCIL CLASPS

STANLEY



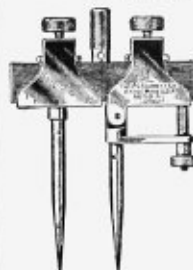
For attaching pencil to dividers. Nickel plated 1¼ inch long.

No. 8—Wt. per dozen, ½ lb.\$1.80

One dozen in a box.

TRAMMELS

STARRETT, IMPROVED



Adjustable Points

Used to measure distances too great for regular dividers. Bronze body, hardened forged steel points adjustable like spring dividers. Light and durable.

Nos.	Description	Each
50A	With 3 points adj.....	\$3.50
50B	With 3 points, not adjustable.	2.25
50C	5 inch points.....	Per set .50

One in a box.

STARRETT

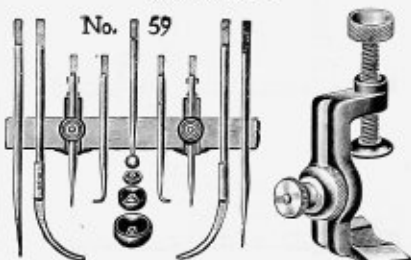
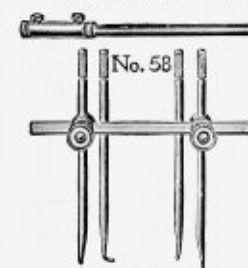


Illustration shows trammels fastened to a wood beam attached by means of head, right hand illustration. Can be clamped on beam ¼ to 1½ inches.

Nos.	Description	Each
59A	Heads with one pair points..	Per set \$2.40
59B	Balls and holder.....	Per set 1.50
59C	Small caliper legs...Per pair	.60
59D	Large caliper legs...Per pair	1.00
59E	Large divider legs...Per pair	.60
59F	Set complete as shown above.	5.75

One in a box.

STARRETT, STEEL BEAM



Extension Plain Finish

Steel beam is ½ inch round, one side flattened. Each section 14 inches long and coupled by improved socket.

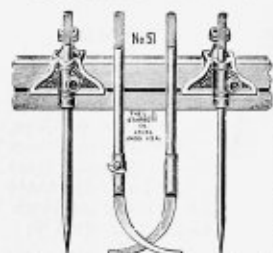
Plain	Each	Nic. Pltd.	Each	Sections
58A	\$2.65	58D	\$3.25	One, 14 in.
58B	3.15	58E	3.85	Two, 28 in.
58C	3.60	58F	4.35	Three, 42 in.

Plain	Each	Nic. Pltd.	Each
Extra Sections	\$0.60		\$0.75
Ex. Caliper Points...	.60		.75

One in a box.

TRAMMELS

STARRETT EXTENSION BEAM



Nickel
Plated

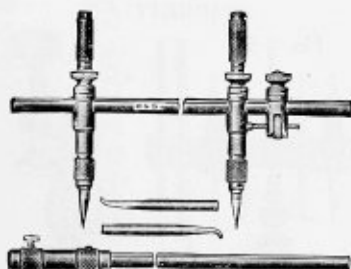
Illustration shows trammels fitted to a beam which is not furnished.

Points are eccentric, may be loosened and rotated in their sockets to make fine adjustments.

Nos.	Description	Each
51A	Complete set	\$4.50
51B	Without caliper legs	3.50

One set in a box.

BROWN & SHARPE STEEL BEAM

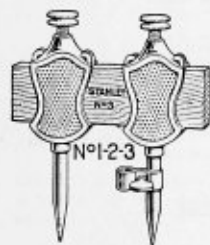


Spring friction prevents trams from sliding when loosened. Points held by spring chucks. Two scribers and two caliper points furnished.

Nos.	Each	Beam in.	Describes circle, in.
845	\$4.00	9	18
845A	6.00	14	26
845B	7.50	14	54

No. 845B has beam and extension.
One in a box.

STANLEY

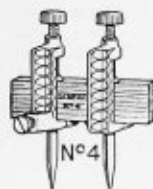


Bronze Body
Steel Points

Nickel plated pencil clasp can be attached to either point.

Nos.	Per set	Wt. set, lbs.	Width open, in.
1	\$2.00	1/4	5/8
2	2.40	3/8	1
3	3.00	3/4	1 1/4

One set in a box.



Nickel Plated Iron

Attached to stick or straight edge up to 1/4 in. Steel hardened points.

No.	Wt. per set	Per set
No. 4	Wt. per set	
	3/4 lb.	\$1.50

One set in a box.

MACHINISTS' STEEL RULES

Machinists' steel rules are divided into parts of inches as follows:

No. 1 Graduation

1st corner	10, 20, 50, 100
2nd corner	12, 24, 48
3rd corner	16, 32, 64
4th corner	14, 28

No. 2 Graduation

1st corner	10, 20, 50, 100
2nd corner	12, 24, 48
3rd corner	16, 32, 64
4th corner	8

No. 4 Graduation

1st corner	64
2nd corner	32
3rd corner	16
4th corner	8

No. 7 Graduation

1st corner	64
2nd corner	32
3rd corner	16
4th corner	100

No. 10 Graduation

1st corner	32
2nd corner	64

No. 11 Graduation

1st corner	64
2nd corner	100

No. 12 Graduation

1st corner	50
2nd corner	100

STARRETT



Spring Tempered

Thickness 3/16 inch or No. 18 gage.

No. 300—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
1	\$0.30	1/2	12	\$1.65	1
2	.45	3/4	18	2.60	1 1/4
3	.60	7/8	24	3.25	1 1/2
4	.75	5/8	36	7.00	1 3/4
6	.90	3/4	48	10.00	1 3/4
9	1.35	7/8			

Following Same as Above

No. 301 with No. 1 graduation.

No. 302 with No. 2 graduation.

No. 307 with No. 7 graduation.

Nos. 301 and 302 made 6 and 12 inches only, No. 307 made 1 to 48 in.

1 to 12 inch, six in a box.

Larger sizes, one in a package.



Spring Tempered

Quick reading.

Thickness, 3/16 inch or No. 18 gage.

No. 603—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
2	\$0.45	1/2	6	\$0.90	3/4
3	.60	5/8	9	1.35	7/8
4	.75	5/8	12	1.65	1

Six in a box.

MACHINISTS' STEEL RULES

LUFKIN



Spring Tempered

Readable Graduations

Thickness 3/16 inch.

No. 2204R with No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
1	\$0.30	1/2	12	\$1.65	1
2	.45	3/4	18	2.60	1 1/4
3	.60	7/8	24	3.25	1 1/2
4	.75	5/8	36	7.00	1 3/4
6	.90	3/4	48	10.00	1 3/4
9	1.35	7/8			

1 to 12 inch, six in a box.

Larger sizes, one in a package.



Stainless Steel

Readable Graduations

Thickness 3/16 inch.

No. S2204R—With No. 4 Graduations

Length, inches	Each	Width, inch
6	\$1.35	3/4
12	2.65	1

Six in a box.



Bevel Edge—Spring Tempered

Thickness 3/16 inch.

No. 2224—With No. 4 Graduations

Length, inches	Each	Width, inch
6	\$0.90	3/4
12	1.65	1

Six in a box.

STARRETT



Heavy Spring Tempered

Semi-flexible, quick reading. Thickness 7/16 inch.

No. 410—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
12	\$1.65	1 1/4	48	\$10.00	1 3/4
18	2.60	1 1/4	60	20.00	1 3/4
24	3.25	1 1/4	72	24.00	1 3/4
36	7.00	1 3/4			

12 inch, six in a box, others one in a package.

LUFKIN



Heavy
Spring
Tempered

Thickness, 7/16 inch.

No. 2404—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
36	\$7.00	1 1/2	60	\$20.00	1 3/4
48	10.00	1 1/2	72	24.00	1 3/4

One in a package.

MACHINISTS' STEEL RULES STARRETT



Very Thin, Flexible Steel

No. 320—With No. 10 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
1	\$0.30	1/2	9	\$1.35	1 1/2
2	.45	1/2	12	1.65	1 1/2
3	.60	1/2	18	2.60	3/4
4	.75	1/2	24	3.25	3/4
6	.90	1/2	36	7.00	3/4

No. 321, With No. 11 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
6	\$0.90	1/2	12	\$1.65	1 1/2

1 to 12 inch six in a box, larger sizes one in a package.

LUFKIN



Full Flexible Steel

Thickness 1/16 inch.

No. 2110—With No. 10 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
1	\$0.30	1/2	12	\$1.65	1 1/2
2	.45	1/2	18	2.60	3/4
3	.60	1/2	24	3.25	3/4
4	.75	1/2	36	7.00	3/4
6	.90	1/2	48	10.00	3/4
9	1.35	1/2			

Full Flexible Steel



Readable graduations

16ths, 32nds and 64ths. Thickness 1/16 inch.

Each

No. 2110R—Length 6 in.; wt. dozen

1/4 lb. \$0.90

Six in a box.



Semi-Flexible Steel

Thickness, 1/50 inch.

No. 2604R—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
2	\$0.45	1/2	6	\$0.90	3/4
3	.60	1/2	9	1.35	7/8
4	.75	5/8	12	1.65	1

Six in a box.

STARRETT



Narrow, Spring Tempered

Thickness, 1/25 inch.

No. 330—With No. 10 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
4	\$0.75	1/2	9	\$1.35	1 1/2
6	.90	1/2	12	1.65	1 1/2

Six in a box.

MACHINISTS' STEEL RULES LUFKIN



Spring Tempered

Thickness, 1/16 inch.

No. 2310—With No. 10 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
4	\$0.75	1/2	9	\$1.35	1 1/2
6	.90	1/2	12	1.65	1 1/2

No. 2311—With No. 11 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
4	\$0.75	1/2	9	\$1.35	1 1/2
6	.90	1/2	12	1.65	1 1/2

Six in a box.

STARRETT



Hook

For taking measurements from points

where one cannot see if rule is even with measuring edge. Hook may be removed by turning the eccentric stud.

No. 419—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
6	\$1.25	3/4	24	\$3.75	1 1/4
9	1.75	7/8	36	7.65	1 1/2
12	2.15	1	48	10.75	1 1/2
18	3.10	1 1/8			

6 to 12 inch three in a box, larger sizes, one in a package.



Adjustable Hook

Can be adjusted short or long. Hooks

are hardened and can be removed.

No. 418—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
6	\$1.25	3/4	18	\$3.10	1 1/8
9	1.75	7/8	24	3.75	1 1/4
12	2.15	1			

6 to 12 inch three in a box, larger sizes one in a package.



Hook

Hardened

hook removed by giving eccentric half turn. Thickness 1/16 inch.

No. H2204R—With No. 4 Graduations

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
6	\$1.25	3/4	18	\$3.10	1 1/4
9	1.75	7/8	24	3.75	1 1/4
12	2.15	1	30	7.65	1 1/4

6 to 12 inch three in a box, larger sizes one in a package.



Reversible Hook

Can be easily

changed to any of the No. 4 graduations and read from zero. Thickness 1/16 inch.

No. H224—With No. 4 Graduation

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
6	\$1.50	3/4	12	\$2.40	1
9	2.00	7/8			

Three in a box.

MACHINISTS' STEEL RULES STARRETT



Narrow Hook

Thickness 1/25 inch.

No. 422—With No. 10 Graduation

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
4	\$1.00	1/2	9	\$1.65	1 1/2
6	1.20	1/2	12	2.00	1 1/2

Three in a box.

LUFKIN



Narrow Hook

Thickness, 1/16 inch.

No. H2310—With No. 10 Graduation

Lth., in.	Each	Width, in.	Lth., in.	Each	Width, in.
4	\$1.00	1/2	9	\$1.65	1 1/2
6	1.20	1/2	12	2.00	1 1/2

Three in a box.

BROWN & SHARPE



Caliper Eccentric

Nut locks the slide when set.

No. 391—With No. 4 Graduations

Length, inches	Each	Callipers inches
3	\$5.00	2 1/4
4	6.50	3 1/4

Six in a box.

LUFKIN



No. 62

One-Piece Long Tempered Steel

Thickness, 1/16 inch, 1/4 inch hole in one end. Black graduations.

No. 62—Graduated 8ths and 16ths

Lth., ft.	Each	Width, in.	Lth., ft.	Each	Width, in.
2	\$1.50	1 1/4	5	\$7.50	1 1/4
3	2.50	1 1/4	6	9.60	1 1/4
4	3.60	1 1/4			

STEEL STRAIGHT EDGES

STARRETT



Plain Edge

Not Beveled

Hardened steel for precision work.

Lth., in.	Each	W'th. in.	Lth., in.	Each	W'th. in.
12	\$1.50	1	48	\$9.60	2 1/2
18	2.40	1 1/4	60	14.40	3
24	3.30	1 1/2	72	19.20	3
36	6.00	2			

One in a package.



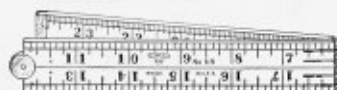
Beveled One Edge

Only

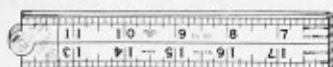
Hardened steel for precision work.

Lth., in.	Each	W'th. in.	Lth., in.	Each	W'th. in.
12	\$2.00	1	48	\$12.00	2 1/2
18	3.25	1 1/4	60	18.00	3
24	4.50	1 1/2	72	24.00	3
36	7.20	2			

One in a package.

BOXWOOD RULES**STANLEY**
TWO FOOT, FOUR FOLD**With Heavy Figures**

Round joint, middle plates. Graduated 8ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 68—(651) wt. per dozen 1½ lbs.\$2.40
One dozen in a box.

**With Heavy Figures**

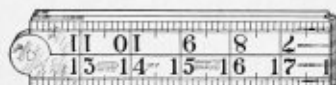
Square joint, middle plates. Graduated 8ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 61—(751) wt. per dozen 1½ lbs.\$4.76
One-half dozen in a box.

**Full Brass Bound Drafting Scales**

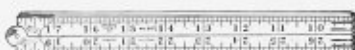
Square joint. Graduated 8ths, 10ths, 12ths and 16ths of an inch. With drafting scales. 1 inch wide.
Per dozen
No. 62—(781) wt. per dozen 2½ lbs.\$12.68
One-half dozen in a box.

**Edge Plates, Drafting Scales**

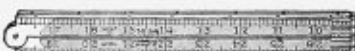
Arch joint. Graduated 8ths, 10ths, 12ths and 16ths of an inch with drafting scales. 1 inch wide.
Per dozen
No. 53½—(861A) wt. per dozen 1½ lbs.\$12.60
One-half dozen in a box.

**Blindmen's, Extra Large Figures and Graduations**

Square joint. Graduated 8ths and 16ths of an inch. 1½ in. wide.
Per dozen
No. 7—(752B) wt. per dozen 2 lbs.\$12.60
One-half dozen in a box.

BOXWOOD RULES**STANLEY**
THREE FOOT, FOUR FOLD

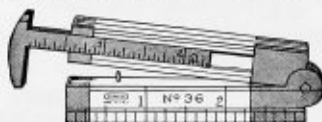
Arch joint, middle plates. Graduated in 8ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 66½—(3851) wt. per dozen 2 lbs.\$8.00
One-half dozen in a box.

**Full Brass Bound**

Arch joint. Graduated 8ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 66¾—(3881) wt. per dozen 3¼ lbs.\$23.10
One-half dozen in a box.

FOUR FOOT FOUR FOLD**Full Brass Bound**

Arch joint, graduated 8ths and 16ths of an inch. 1½ inches wide.
Per dozen
No. 94—(4883) wt. per dozen 6 lbs.\$42.00
One-half dozen in a box.

CALIPER SIX INCH TWO FOLD

Square joint. Graduated in 8ths, 10ths, 12ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 36—(171) wt. per dozen ¾ lb.\$8.34
One-half dozen in a box.

CALIPER ONE FOOT FOUR FOLD**Edge Plates**

Arch joints. Graduated 8ths, 10ths, 12ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 32—(386) wt. per dozen 1½ lbs.\$12.80
One-half dozen in a box.

BOXWOOD RULES**STANLEY**
CALIPER ONE FOOT TWO FOLD

Square joint. Graduated in 8ths, 10ths, 12ths and 16ths of an inch. 1½ inches wide.
Per dozen
No. 36½—(372) wt. per dozen 1¼ lbs.\$12.10
One-half dozen in a box.

LUFKIN**CALIPER, TWO FOOT, FOUR FOLD****Full Brass Bound**

Square joint. Graduated in 8ths, 10ths, 12ths and 16ths of an inch. 1 inch wide.
Per dozen
No. 781C—(62C) wt. per dozen 2¼ lbs.\$23.75
One-half dozen in a box.

LUFKIN**COMBINATION TWO FOOT, FOUR FOLD****Rule, Level and Protractor**

Arch joint, edge plates. Graduated in 8ths and 16ths of an inch. 1½ inch wide.
Made with a spirit level and brass protractor plate very handy for carpenters and other mechanics. Also for use around mines and for general use. With the aid of protractor plate angles of any degree can be measured and laid out.

Per dozen
No. 863L—Wt. per dozen 3 lbs.\$23.75

One in a box.

CONCENTRATE YOUR PURCHASES

Our large stocks, our vast resources and our efficient service assure to you profitable purchasing and complete satisfaction.

FOLDING RULES STANLEY ZIG-ZAG



Spring Concealed Joint, Six Inch Folds
Stainless steel trim. Large Gothic figures. Arrow marking direction of rule. Width $\frac{5}{8}$ inch.

Yellow Enameled

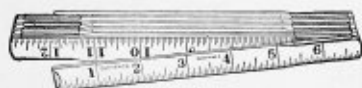
Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
04	\$ 5.20	4	2
05	6.40	5	2½
06	7.20	6	3
08	10.00	8	4

White Enameled

104	\$ 5.60	4	2
105	6.90	5	2½
106	7.80	6	3
108	10.80	8	4

One-half dozen in a box.

STANLEY DEFIANCE



Spring Concealed Joints, Six Inch Folds
Blued steel joints and tips. No direction arrows or strike plates. Marked in 16ths of an inch. Width $\frac{5}{8}$ in.

Nos.	Per dozen	Color	Lth., ft.	Wt. per doz., lbs.
1226	\$3.10	Yellow	6	3
1236	3.20	White	6	3

One-half dozen in a box.

LUFKIN



Spring Rivet Joint, Six Inch Folds Flexible Hardwood

Brass plated trim. Patented lock joints. Width $\frac{5}{8}$ inch. Marked 16ths of an inch.

Cream Enameled

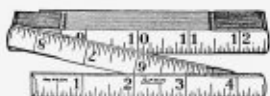
Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
8524	\$3.40	4	2
8525	4.20	5	2½
8526	4.80	6	3
8528	6.60	8	4

White Enameled

8624	\$3.60	4	2
8625	4.80	5	2½
8626	5.40	6	3
8628	7.20	8	4

One-half dozen in a box.

FOLDING RULES LUFKIN



Brass plated trim, patented lock joints. Width $\frac{5}{8}$ inch. Marked 16ths of an inch.

White Enameled

Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
4603	\$5.80	3	1
4604	7.70	4	1¼

One-half dozen in a box.

LUFKIN RED END



Spring Patented Lock Joint, Six Inch Folds, Flexible Hardwood

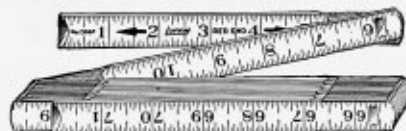
Solid brass trim, strike plate, patented lock joints. Width $\frac{5}{8}$ in. Red ends. Marked 16ths inch.

Cream Enameled

Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
054	\$4.80	4	2¼
055	6.00	5	2¾
056	7.20	6	3½

White Enameled

064	\$5.20	4	2¼
065	6.50	5	2¾
066	7.80	6	3½



Inside Markings

Spring Patented Lock Joint, Six Inch Folds, Flexible Hardwood

Solid brass trim, strike plate, patented lock joints. Width $\frac{5}{8}$ inch. Red ends, marked 16ths of an inch (numbering commences on inside of rule).

White Enameled

No. 066F—6 ft.; wt. per dozen 3½ lbs.\$7.80



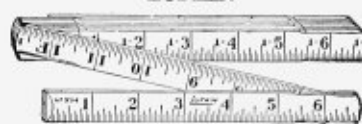
Engineers', Surveyors' and Road Builders'
Same as above, but marked feet, 10ths and 100ths of feet inside. Feet, inches and 16ths of an inch outside, instantaneous readings. Foot numbers in red repeated each 10th and each inch.

White Enameled

No. 066D—6 ft., wt. per dozen 3½ lbs.\$7.80

All above, one-half dozen in a box.

FOLDING RULES LUFKIN



Spring Patented Lock Joint, Six Inch Folds, Flexible Hardwood

Brass plated trim, $\frac{5}{8}$ inch wide. Marked feet, inches and 16ths. Both sides (inches in foot numbered one to eleven, instantaneous readings, foot numbers in red repeated at each inch).

White Enameled

No. 9626—6 ft.; wt. dozen 3 lbs....\$5.40
One-half dozen in a box.



Engineers', Surveyors' and Road Builders' Spring Patented Lock Joint, Six Inch Folds, Flexible Hardwood

Brass plated trim. Width $\frac{5}{8}$ in. Marked feet, 10ths and 100ths of feet on inside; feet, inches and 16ths on outside. Instantaneous readings. Foot numbers in red repeated each 10th of an inch.

White Enameled

No. 9626D—6 ft.; wt. doz. 3 lbs....\$5.40
One-half dozen in a box.

LUFKIN NATIONAL



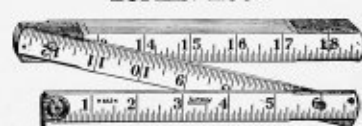
Spring Joint, Six Inch Folds Flexible Hardwood

Steel trim, width $\frac{5}{8}$ inch. Marked 16ths of an inch.

Nos.	Color	Lth., feet	Wt. per doz., lbs.	Per doz.
576	Yellow	6	3	\$2.90
676	White	6	3	3.00

One-half dozen in a box.

LUFKIN HOOK



Spring Patented Lock Joint, Six Inch Folds, Flexible Hardwood

Brass plated trim. Width $\frac{5}{8}$ inch.

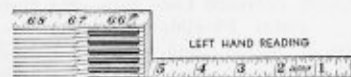
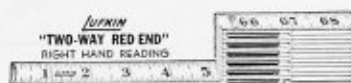
White Enameled

Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
H8625	\$5.40	5	2½
H8626	6.00	6	3
H8628	7.80	8	4

One-half dozen in a box.

FOLDING RULES

LUFKIN RED END TWO WAY

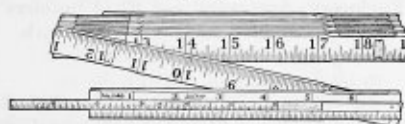


Spring Patented Lock Joints, Six Inch Folds, Flexible Hardwood

Brass trim. Width $\frac{5}{8}$ inch, one side reads left to right, other side right to left.

White Enamelled

No. 966—6 ft.; wt. per dozen 3 lbs. \$7.80
One-half dozen in a box.

FOLDING EXTENSION RULES
LUFKIN

Maple and Boxwood, Spring Patented Lock Joints, Six Inch Folds

Brass plated trim. Width $\frac{5}{8}$ inch.

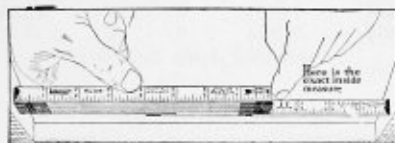
Marked consecutive inches to 16ths, both sides; brass extension slide on first section of rule marked inches to 16ths.

For all general measuring. Also for taking inside measurements of door and window openings, etc. Light in weight and very durable. Length 6 ft.

Nos.	Wood	Per dozen	Wt. per doz., lbs.
X8536	Box	\$14.40	4 $\frac{3}{4}$
X46	Maple	12.00	4 $\frac{1}{2}$

One-half dozen in a box.

MASTER SLIDE



For Inside and Outside Measurements

Boxwood, water proof lacquer finish in natural color; marked consecutive inches to 16ths both sides; solid spring brass clamps and locks.

Outside measure can be taken as easily and quickly as inside measure. Opens like a telescope.

Nos.	Per dozen	Lgth., ft.	No. of slides	Wt. per doz., lbs.
4MS	\$9.60	4	8	3
5MS	12.00	5	10	3 $\frac{1}{2}$
6MS	14.40	6	12	4
8MS	19.20	8	16	5

One-half dozen in a box.

FOLDING ALUMINUM RULES

LUFKIN FOLDING



Brass Joints, Six Inch Folds

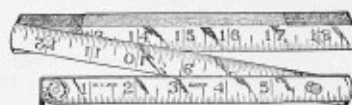
Hardened aluminum. Width $\frac{5}{8}$ inch. Marked in 16ths of an inch.

Nos.	Per dozen	Length, ft.	Wt. per doz., lbs.
1204	\$9.50	4	3 $\frac{3}{4}$
1205	12.00	5	4 $\frac{1}{4}$
1206	14.20	6	5

Inside Markings

1206F \$14.20 6 4 $\frac{1}{4}$

One-quarter dozen in a box.



With Folding Hooks

Brass Joints, Six Inch Folds

Hardened aluminum. Width $\frac{5}{8}$ in. Marked in 16ths of an inch.

Nos.	Per dozen	Length, ft.	Wt. per doz., lbs.
1204H	\$10.70	4	3 $\frac{3}{4}$
1205H	13.20	5	4 $\frac{1}{4}$
1206H	15.40	6	5

One-quarter dozen in a box.

FOLDING STEEL RULES

LUFKIN-MECHANICS'



Lock Joints, Six Inch Folds

Width $\frac{5}{8}$ inch, $\frac{3}{4}$ inch thick. Marked in 16ths of an inch.

Nos.	Each	Length, ft.	Wt. per doz., lbs.	No. in a box
1172	\$1.30	2	2 $\frac{1}{4}$	12
1173	2.00	3	3 $\frac{1}{4}$	12
1174	2.60	4	4 $\frac{1}{2}$	6
1175	3.30	5	5 $\frac{1}{2}$	6
1176	3.90	6	6 $\frac{1}{2}$	6
1178	5.40	8	8 $\frac{1}{2}$	6

LUFKIN POCKET



Flexible, Lock Joints, Nubian Finish

Width $\frac{5}{8}$ inch, .020 inch thickness. Marked 16ths of an inch.

No. 1143—3 ft.; wt. per dozen 1 lb. \$1.70
Case extra Each .10

Twelve in a box.

FOLDING STEEL RULES

LUFKIN POCKET



Semi-Flexible, Lock Joints, Six Inch Folds

Width $\frac{1}{2}$ inch, .020 inch thick. Will form a circle. Figures in black. Marked one side 8ths, other side 16ths.

No. 4642—2 ft.; wt. per dozen 1 lb. \$1.40
Case Extra Each .15

Twelve in a box.

SHRINKAGE RULES

STANLEY



Pattern Makers', Boxwood

Boxwood, brass tips, marked in 8ths, 10ths, 12ths and 16ths of an inch. Length 24 inches, 1 $\frac{1}{2}$ inch wide.

Nos.	Per dozen	Shrinkage, in inches per ft.
30 $\frac{1}{2}$ C	\$22.00	$\frac{1}{16}$
30 $\frac{1}{2}$ E	22.00	$\frac{1}{8}$
30 $\frac{1}{2}$ F	22.00	$\frac{1}{4}$
30 $\frac{1}{2}$ G	22.00	$\frac{1}{2}$

One-half dozen in a box.

LUFKIN



Pattern Makers', Steel

Machine divided, No. 4.

Graduation, 8ths, 16ths, 32nds, 64ths, shrinkage inch.

Thickness $\frac{3}{4}$ of an inch.

Used by pattern makers, foundry workers and others. Carefully ground and graduated with clear, dark lines and figures easy to read.

Nos.	Each	Lgth., in.	Shrinkage, per ft.	Wt. each, oz.
83C-12	\$2.10	12	$\frac{1}{16}$	2 $\frac{1}{2}$
83C-24	4.25	24	$\frac{1}{16}$	6
83E-12	2.10	12	$\frac{1}{8}$	2 $\frac{1}{2}$
83E-24	4.25	24	$\frac{1}{8}$	6
83F-12	2.10	12	$\frac{1}{4}$	2 $\frac{1}{2}$
83F-24	4.25	24	$\frac{1}{4}$	6
83G-12	2.10	12	$\frac{1}{2}$	2 $\frac{1}{2}$
83G-24	4.25	24	$\frac{1}{2}$	6
83H-12	2.10	12	$\frac{1}{16}$	2 $\frac{1}{2}$
83H-24	4.25	24	$\frac{1}{16}$	6
83K-12	2.10	12	$\frac{3}{16}$	2 $\frac{1}{2}$
83K-24	4.25	24	$\frac{3}{16}$	6

Twelve inch, six in a box, balance one in a package.

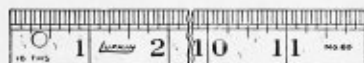
MANUAL TRAINING RULES LUFKIN



Maple or Boxwood

Brass capped, marked both sides, 8ths and 16ths of an inch. Width $1\frac{1}{8}$ inch, thickness $\frac{1}{8}$ inch.

Nos.	Per dozen	Wood	Lgth., doz., ft.	Wt. per lbs.
34 $\frac{1}{4}$	\$5.30	Maple	1	1
34 $\frac{1}{2}$	6.60	Box	1	1

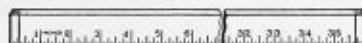


Steel

Tempered steel, $\frac{3}{4}$ inch wide, $\frac{1}{8}$ inch thick, hole in one end, black graduations in 8ths and 16ths.

Lgth., ft.	No. 60 Each	Wt. ea., oz.
1	\$0.50	1 $\frac{1}{2}$
2	1.00	3

YARD STICKS STANLEY

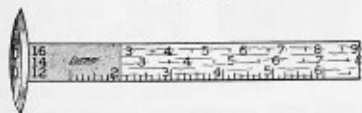


Maple or hickory. Brass tips. Marked 8ths of inch one side, fractions of yard other side.

Nos.	Per dozen	Wood	Wt. per doz., in. lbs.
41	\$6.60	Maple	1 3 $\frac{3}{4}$
50	10.50	Hickory	$\frac{3}{4}$ 2

Twelve in a package.

BOARD RULES LUFKIN



Narrow Pattern

White hickory, burnt figures, oval steel head, 3 tier, marked 8/18 figured 30 inches. Width 1 inch, length over all, 36 inches.

Per dozen
No. 2N—Weight dozen 6 lbs.....\$41.60
Open stock.

LOG RULES LUFKIN



Square Head, Doyle Scale

Hickory burnt figures, brass head, figured 36 inches, regular markings, 8/20 and 12/24 feet. Width $1\frac{1}{4}$ inch, length over all 42 inches.

Per dozen
No. 15—Weight dozen 8 $\frac{1}{2}$ lbs.....\$38.40
Open stock.

WANTAGE RODS LUFKIN—BARREL



Hard Maple

For determining wantage or outage of standard type barrels. Length 18 inches, $\frac{5}{8}$ in. square. This 12 line rod is suitable for barrels of twelve standard sizes.

Per dozen
No. 7188—Weight dozen 3 lbs.....\$42.00
Open stock.

GAGING RODS LUFKIN



Maple, Brass Tip

For finding the capacity of barrels or casks holding up to 120 gallons. Length 3 feet, $\frac{7}{8}$ inch square.

Per dozen
No. 7181—Wt. per dozen 3 lbs.....\$20.00
Open stock.

LUMBER GAGES LUFKIN

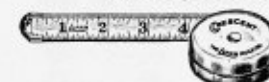


Brass Nickel Plated

For measuring thickness of lumber. Measures $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$ and 2 inches.

Per dozen
No. 00\$10.50
One in a box.

TAPE RULES LUFKIN CRESCENT



Automatic Wind $\frac{5}{8}$ Inch Blade

Nickel plated steel blade stiffened by concave forming can be projected unsupported like a rule, yet will flex and measure circles, etc. Sliding end hook; blade manually withdrawn, automatically returned.

No. 696

Marked one side only, inches to 16ths; both edges; first 6 inch, upper edge to 32nds.

No. 696D

Marked 10ths and 100ths of feet upper edge; feet, inches and 16ths of inch lower edge. Nickel plated case.

Nos.	Each	Length, inches	Wt. per doz., lbs.
696	\$2.50	72	4 $\frac{1}{2}$
696D	2.75	72	4 $\frac{1}{2}$

One in a box, six in a carton.

TAPE RULES

LUFKIN CRESCENT, STAINLESS



Automatic Wind $\frac{5}{8}$ Inch Blade

Same as No. 696 on this page but with stainless steel blade and stainless steel case.

Each
No. S696—Length 72 inches; wt. dozen 4 $\frac{1}{2}$ lbs.\$3.00
One in a box, six in a carton.

LUFKIN CRESCENT JUNIOR



Automatic Wind $\frac{5}{8}$ Inch Blade

Nickel plated steel blade, solid end hook, blade manually withdrawn, automatically returned.

Marked one side only, inches to 16ths both edges, first 6 inches upper edge to 32nds.

Each
No. 1696—Length 72 inches; weight dozen 2 $\frac{1}{2}$ lbs.\$1.50
One in a box, six in a carton.

LUFKIN, ARISTOCRAT

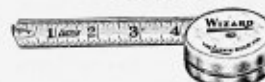


Manually Operated 7/16 Inch Blade

Nickel plated steel blade stiffened by concave forming, can be projected like a rule, yet will flex and measure circles, etc. Manually withdrawn and returned, solid end hook. Marked one side only to 16ths both edges, first 6 inches upper edge to 32nds. Stainless, steel case.

Each
No. 186—Length 72 inches; weight dozen 2 lbs.\$1.50
One in a box, three in a carton.

LUFKIN WIZARD



Manually Operated $\frac{5}{8}$ Inch Blade

Nickel plated steel blade stiffened by concave forming, can be projected like a rule, yet will measure circles, etc. Manually withdrawn and returned, solid end hook, marked one side only, inches to 16ths, both edges; first 6 inches upper edge to 32nds. Nickel plated case.

Nos.	Each	Length, inches	Wt. per doz., lbs.
686	\$1.00	72	3
688	1.50	96	3 $\frac{1}{2}$

One in a box, six in a carton.

LUFKIN WIZARD JUNIOR

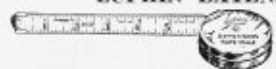
Manually Operated, $\frac{1}{2}$ Inch Blade

Same as above, but small size.

Per dozen
No. 1686—Length 72 inches; weight per dozen 2 $\frac{1}{4}$ lbs.\$9.00
One in a box, six in a carton.

TAPE RULES

LUFKIN EXTENSION



Manually
Operated
3/4 Inch
Blade

For inside measuring and all other common measuring.

For inside measuring it has in addition to the graduated blade an extension blade of the same steel. Nickel plated stiffened concave blade. Lower edge for ordinary measuring, upper edge for extension. Marked one side inches to 16ths. Nickel plated case.

Each
No. X686—Length 72 inches; wt. per
dozen 3 1/2 lbs. \$2.00

One in a box with directions.

LUFKIN MEZURALL



Manually
Operated
3/4 Inch
Blade

An all purpose rule, for inside and outside, height and depth. End hook has short sliding action. Nickel plated blade and case. Size case 3/4 inch thick, 2 inches wide. Blade marked both edges inches to 16ths, first 6 inches upper edge to 32nds.

Nos.	Each	Length, in.	Marked	Wt. per doz., lbs.
926	\$1.00	72	One side	2 1/2
926B	1.25	72	Both sides	2 1/2

One in a box, six in a carton.

STANLEY "PUSH-PULL"



Removable Blades

Gun black steel case with target rings to give good grip. 3/4 inch wide blade, can be removed for measuring end to end. Push-pull blade action. Marked in inches and 16ths for 6 feet and in 32nds on upper edge for 6 inches.

Each
No. 7506—Length 72 inches; wt.
each 2 oz. \$0.60

One in a box, six in a carton.



Attached Blades

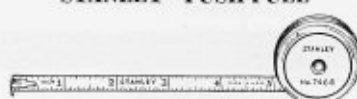
Gun black steel case, 1/2 inch blade with hook on end. Marked inches and 16ths entire length, 32nds on upper edge for 6 inches.

Each
No. 1266A—Length 72 inches; wt.
each 2 oz. \$0.75

One in a box, six in a carton.

TAPE RULES

STANLEY "PUSH-PULL"



True Tapes—Attached Blades

Small blade, 3/4 inch wide, 1 1/2 inch diameter case.

Nickel plated steel case and blade. Marked on both edges in inches and 16ths for their entire length and in 32nds on upper edge for 6 inches.

Each
No. 7466—Length 72 inches; wt.
each 3/4 oz. \$1.00
One in a box, six in a carton.

MEASURING TAPES

LUFKIN



Reliable Steel
Instantaneous
Readings
3/4 Inch Tape

Brown hand stitched leather, steel lined case. Double folding flush handle. Nickel plated mountings.

Marked in feet and 8ths.

Nos.	Each	Length, feet	Wt. each, oz.
200	\$ 5.50	25	9
203	8.60	50	13
205	12.50	75	18
206	15.00	100	21



Challenge
Steel
Instantaneous
Readings
3/4 Inch Tape

Brown hand stitched leather, steel lined case. Flush handle, nickel plated mountings.

Marked in Feet and 8ths of an Inch

Nos.	Each	Length, feet	Wt. each, oz.
260	\$ 4.90	25	8
263	6.00	50	12
265	7.80	75	17
266	10.20	100	21

Marked in 10ths and 100ths of Feet

Nos.	Each	Length, feet	Wt. each, oz.
260D	\$ 4.90	25	8
263D	6.00	50	12
265D	7.80	75	17
266D	10.20	100	21



Challenge Steel
Junior
Instantaneous Readings
1/4 Inch Tape

Brown hand stitched leather, steel lined case. Flush handle. Marked feet, inches and 16ths of an inch.

Nos.	Each	Length, feet	Wt. each, oz.
1260	\$4.70	25	4
1263	5.70	50	6

All above, one in a box.

MEASURING TAPES

LUFKIN



Challenge
Stainless Steel
Instantaneous
Readings
3/4 Inch Tape

Brown hand stitched leather, steel lined case. Flush handle. Nickel plated mountings.

Marked feet, inches and 8ths of an inch.

Nos.	Each	Length, feet	Wt. each, oz.
S260	\$ 7.30	25	8
S263	10.70	50	12
S265	14.80	75	17
S266	19.50	100	21



Universal Steel
Instantaneous
Readings
3/4 Inch Tape

"Kerato" black imitation mottled leather case.

Folding flush handle, nickel plated mounting.

ings. Marked one side only, feet, inches and 8ths of an inch.

Nos.	Each	Length, feet	Wt. each, oz.
540	\$2.80	25	6
543	3.10	50	10
545	4.30	75	15
546	5.30	100	17

Note—These tapes can be supplied with hooks at 20 cents extra each.

LUFKIN, MILLMEN

Artisan Pattern
Steel, 3/4 Inch Tape
with Hook

Used on metal sheets, tubing, etc. in mills and warehouses. U shape hook on end. Nickel plate case. Marked

one side only consecutive inches to 16ths. Numbered from 1 to 144 inches.

Nos.	Item	Per doz.	Wt. per doz., lbs.
112CH	With Case	\$32.40	4
0112CH	Tape only	18.00	3/4



Spring Wind Pattern
3/4 Inch Tape
With Hook

Used on metal sheets, tubing, etc. in mills and warehouses.

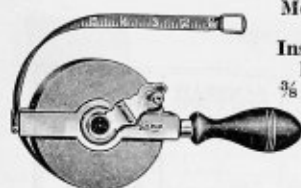
U shaped hook on end. Nickel plated case. Marked one side only consecutive inches to 16ths. Numbered from 1 to 144 inches.

Nos.	Item	Per doz.	Wt. per doz., lbs.
1512CH	With Case	\$39.60	3
01512CH	Tape only	21.80	1/2

All above, one in a box.

MEASURING TAPES

LUFKIN



**Metal Frame
Steel
Instantaneous
Readings
3/8 Inch Tape**

For general measuring, require a minimum of care as they do not readily clog with dirt and can be reeled up and put in oil.

Sturdy frame, nickel plated mountings, polished hardwood handle, folding winding flush handle. Nubian finish tape. Marked feet, inches and 16ths, one side only.

Nos.	Each	Length feet	Wt. each, oz.
283	\$ 7.60	50	18
285	10.40	75	23
286	13.00	100	27

One in a box.



**Metallic "Woven"
Instantaneous
Readings
3/8 Inch Tape**

Brown hand stitched leather steel lined case. Folding handle. Nickel plated mountings. Patent threader makes attaching of new tape very simple.

Marked Feet, Inches and Half Inches

Nos.	Each	Length feet	Wt. each, oz.
500	\$3.50	25	9
503	5.00	50	15
505	6.30	75	21
506	7.90	100	24

Marked 10ths and Half 10ths

Nos.	Each	Length feet	Wt. each, oz.
500D	\$3.50	25	9
503D	5.00	50	15
505D	6.30	75	21
506D	7.90	100	24

One in a box.

REFILLS



**Metallic "Woven"
3/8 Inch Wide**

Fits above metallic tapes. Ring one end threaded loop other end.

Marked one side feet, inches and half inches.

Nos.	Each	Length feet	Wt. each, oz.
0500	\$1.40	25	4
0503	2.50	50	7

For Junior Metallic Tapes

3/8 inch wide with patent threader.

Nos.	Each	Length feet	Wt. each, oz.
0660	\$1.40	25	2
0663	2.30	50	4

MEASURING TAPES

LUFKIN JUNIOR



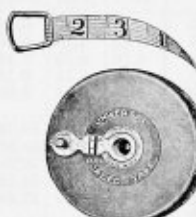
**Metallic "Woven"
1/8 Inch Tape**

Brown hand stitched leather steel lined case. Folding handle. Nickel plated mountings.

Patent threader makes attaching new tape very simple.

Marked one side only in feet, inches and 8ths of an inch.

Nos.	Each	Length feet	Wt. each, oz.
660	\$3.70	25	6
663	4.60	50	9



**Universal
Linen Corded
3/8 Inch Tape**

Brown hand stitched leather steel lined case. Folding handle. Brass mountings. Yellow coated tape marked feet, inches and half

inches one side only.

Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
940	\$22.30	25	5 1/4
943	29.70	50	6 3/4
945	33.70	75	9 1/4
946	37.10	100	11



**Universal Railroad
Reinforced
Linen Corded
1/8 Inch Tape**

Sheet steel case, sides maroon enameled with brass edge band, folding

handle and mountings.

First three feet of tape are doubled and stitched. Marked one side only, feet, inches and 1/4 inch.

Per dozen
No. 733R—Length 50 ft.; wt. per
dozen 4 1/2 lbs. \$13.90



**Sterling Linen
3/8 Inch Tape**

For ordinary work on telephone, telegraph or other lines.

Brown hand stitched leather. Steel lined case. Flush handle.

Nickel plated mountings. Patent threader. Marked feet, inches and 1/2 inch.

Nos.	Each
No. 403—Length 50 feet; wt. each 12 oz.	\$4.50

All above, one in a box.

MEASURING TAPES

LUFKIN



**Universal Ass Skin
(Cotton)
1/8 Inch Tape**

Sheet steel case, cream enameled sides, brass edge band, folding handles and mountings.

Yellow coated cotton tape marked one side only, feet, inches and quarter inches.

Nos.	Per dozen	Length, feet	Wt. per doz., lbs.
710	\$ 5.40	25	2 3/4
713	7.10	50	4
715	10.70	75	5 3/4
716	14.20	100	7

One in a box, six in a carton.

LUFKIN POCKET



**Steel
1/4 Inch Tape**

Spring wind nickel plated metal case with push button and ratchet stop. Flexible steel tape marked one side only inches to 16ths of an inch.

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
143	\$10.20	36	1 1/4
145	13.20	60	1 1/2
146	14.40	72	1 3/4
148	20.40	96	2

One in a box, six in a carton.



**Linen
1/4 Inch Tape**

Spring wind nickel plated metal case with push button and ratchet stop. Enameled linen selvaged line, marked on side only inches to 8ths of an inch.

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
173	\$ 7.20	36	1 1/4
175	9.00	60	1 3/4
176	10.20	72	1 1/2

One in a box, six in a carton.

TAPE HOOKS

LUFKIN



Detachable

Enables one person unassisted to take measurements. For 3/8 inch wide steel tapes. Composition metal. Can be wound in case.

Per dozen
No. 252—For 3/8 in. tape. \$3.00
One dozen on display card.



Detachable

Enables one person unassisted to take measurements. Made of brass, nickel plated. Have tape guide or channel and spring for holding line in guide.

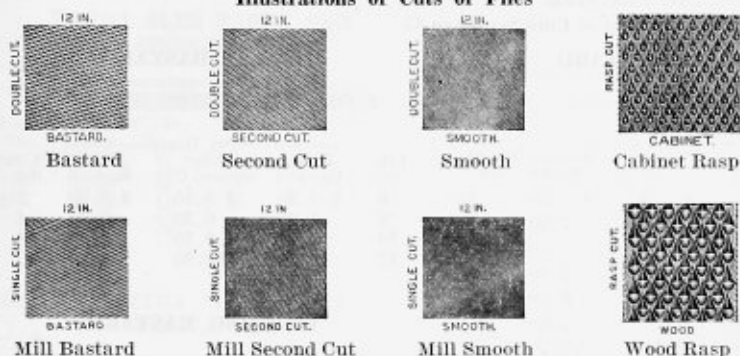
Nos.	Each	For tape, in.
551	\$0.70	1/4
552	.70	3/8

One dozen in a box.

	Per dozen		Per dozen
12 in.—Half round aluminum files, No. 20.....	\$14.10	12 in.—Flat armory cut files, No. 15.....	\$13.30
12 in.—Half round aluminum files, No. 21.....	18.50	10 in.—Last makers cabinet rasps (bastard cut).....	19.50
12 in.—Flat aluminum files, No. 12.....	11.80	10 in.—Last makers cabinet rasps (second cut).....	24.00
12 in.—Flat aluminum files, No. 13.....	16.00	10 in.—Pattern makers cabinet rasps (bastard cut).....	20.60
12 in.—Hand brass files, No. 14.....	15.00	10 in.—Pattern makers cabinet rasps (second cut).....	25.90

FILES

Illustrations of Cuts of Files



NUCUT

We desire to call your attention to the Nucut files which are readily distinguished by their white tangs and the "Wavy Teeth."

The Nucut "Wavy Teeth" principle is a combination of fine and coarse cutting teeth and represents the greatest advance in file construction during the last half century; this accounts for the superior performance of the file.

Nucut files are heat treated, hardened and tempered by electricity.

They perform equally well on steel, iron, aluminum, brass, bronze, copper, slate, wood, etc.

They remove more metal, both machine and hand filing, due to the combination of coarse and fine teeth by irregular spacing of the over cut.

They last much longer and leave a smooth finish. The "Wavy Teeth" causes the file to clear itself.

PREMIER BRAND

This is a standard machine cut file which compares favorably with the regular commercial files on the market. While it in no way compares with the Nucut file in cutting quality or speed in production, we do not hesitate to recommend it in comparison with any regular standard brand of file for ordinary work.

LATHE FILES

Made specially for lathe work, long angle, deep cut, safe edges. Made in 12 and 14 in. lengths.

We also carry in stock, bastard files made specially for cutting brass. When ordering, specify length and shape required.

RADIATOR FILES

We also have a special file for radiator work. Upon receipt of request samples will be furnished for test.

FILE CARDS AND BRUSHES

IXL



Steel Wire Set in Leather

White softwood handle and back. Size 9 in. long, 1 1/4 in. wide.

Per dozen

No. 1—Wt. per dozen 2 lbs.\$2.00

One-half dozen in a box.

DISSTON



Metal Bound

Steel handle, wire set in leather, hardwood back.

Size face 5x1 1/2 in., length over all 9 1/2 in.

Per dozen

No. 1—Wt. per dozen 2 lbs.\$11.00

One-half dozen in a box.

DISSTON



Steel Handle, Metal Bound

Wire set in leather, hardened steel wire set in leather on one side and bristle brush on reverse side. Size face 5x1 1/2 in., length over all 9 1/2 in.

No. 2—Wt. per dozen 2 3/4 lbs.\$12.00

One-half dozen in a box.

FLAT



Length, in.	8	10	12
Wt. doz., lbs.	3 3/4	6 1/4	10 1/4
Regular ....Per doz.	\$12.90	16.10	19.40
Fine ....Per doz.	15.50	18.80	22.20
Smooth ....Per doz.	16.90	20.10	23.30

Length, in.	14	16	18
Wt. doz., lbs.	14 3/4	25 1/4	31 3/4
Regular ....Per doz.	\$23.30	27.90	33.70
Fine ....Per doz.	25.90	30.40	36.30
Smooth ....Per doz.	27.10	31.80	37.50

FLAT UTILITY

Length, in.	8	10	12
Per dozen	\$14.80	18.10	21.30
Length, in.	14	16	
Per dozen	\$25.30	29.70	

Utility Files are cut one side regular and the other side smooth.

FLAT BABBITT

Length, in.	8	10	12	14
Per dozen	\$16.60	19.90	23.90	26.60

Babbitt Files have 8 teeth per inch.

VIXEN FILES

HALF ROUND



Length, in.	8	10	12
Regular ....Per doz.	\$15.10	18.30	21.70
Fine ....Per doz.	17.80	21.00	24.40
Smooth ....Per doz.	19.10	22.30	25.50

Length, in.	14	16
Regular ....Per doz.	\$26.00	31.00
Fine ....Per doz.	28.40	33.50
Smooth ....Per doz.	29.40	34.90

HALF OVAL

Length, in.	10	12	14	16
Per dozen	\$18.30	21.70	26.00	31.00

PILLAR



Length, in.	8	10	12	14
Regular ....Dz.	\$14.10	17.70	21.50	25.10
Fine ....Dz.	17.00	20.40	24.10	27.90
Smooth ....Dz.	18.40	22.00	25.10	29.70

SQUARE



Length, in.	8	10	12	14
Regular				
Per doz.	\$13.50	16.90	20.40	24.50

FLEXIBLE



Length, in.	8	10	12
Regular ....Per doz.	\$14.20	17.80	21.40
Fine ....Per doz.	17.10	20.70	24.30
Smooth ....Per doz.	18.50	22.10	25.70
Backs ....Per doz.	7.20	7.80	8.40
Bolt & Nut. ....Dz. sets	2.40	2.40	2.40
Resharpener			
Per doz.	2.70	3.00	3.40

Length, in.	14	16
Regular ....Per doz.	\$25.70	30.70
Fine ....Per doz.	28.50	33.40
Smooth ....Per doz.	29.90	34.90
Backs ....Per doz.	9.00	9.60
Bolt & Nut. ....Dz. sets	3.00	3.00
Resharpener ....Per doz.	3.60	3.99

FILES

NUCUT AND PREMIER

For Description and Illustration of Cuts See Page 63

FLAT BASTARD



Lth. in.	Flat Bastard	Per Dozen Flat Second Cut	Flat Smooth	Wt. dz., lbs.
4	\$ 3.70	\$ 4.30	\$ 4.70	1½
5	3.90	4.60	4.90	1
6	4.30	4.80	5.30	2
8	5.30	6.10	6.60	4
10	7.00	8.10	8.70	7½
12	9.70	11.00	12.10	13
14	13.30	15.30	16.70	19
16	17.80	20.10	22.30	27
18	23.90	26.80	.....	29
20	31.50	.....	.....	46

HAND BASTARD




Lth. in.	Hand Bastard	Per Dozen Hand Second Cut	Hand Smooth	Wt. dz., lbs.
4	\$ 3.70	\$ 4.30	\$ 4.80	1
5	3.90	4.70	5.30	2
6	4.30	5.10	5.60	2½
8	5.40	6.30	6.70	5
10	7.50	8.70	9.40	10
12	10.70	12.30	13.50	15
14	15.00	17.00	18.20	22
16	20.10	22.80	24.20	36
18	26.80	29.90	31.50	48

HALF ROUND BASTARD



Lth. in.	Half Round Bastard	Per Dozen Half Round Second Cut	Half Round Smooth	Wt. dz., lbs.
4	\$ 4.80	\$ 5.60	\$ 6.10	1½
5	5.40	6.10	6.40	1
6	6.10	6.70	7.10	1½
8	7.50	8.30	8.90	5
10	9.10	10.10	10.70	8
12	11.80	13.00	13.90	12
14	15.50	17.00	18.30	17
16	20.60	22.50	24.20	25
18	27.50	29.90	32.00	38

ROUND BASTARD

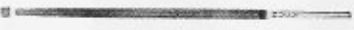


Lth. in.	Round Bastard	Per Dozen Round Second Cut	Round Smooth	Wt. dz., lbs.
4	\$ 3.00	\$ 3.50	\$ 3.90	1½
5	3.20	3.80	4.10	1
6	3.50	4.00	4.50	1½
8	4.30	4.90	5.40	5
10	5.60	6.40	7.00	8
12	7.50	8.60	9.40	12
14	10.70	12.20	13.10	17
16	14.70	16.80	17.90	25
18	20.20	22.70	24.30	38

All above,


4 to 10 inch, one dozen in a box;
12 to 20 inch, one-half dozen in a box.

SQUARE BASTARD




Lth. in.	Square Bastard	Per Dozen Square Second Cut	Square Smooth	Wt. dz., lbs.
4	\$ 3.80	\$ 4.60	\$ 4.90	1½
5	4.10	4.80	5.30	¾
6	4.60	5.10	5.50	1
8	5.50	6.30	7.00	2½
10	7.40	8.50	9.10	4
12	10.20	11.50	12.80	9
14	13.90	16.10	17.50	16
16	18.70	21.20	23.30	27
18	25.10	28.20	30.40	35

MILL BASTARD, SQUARE EDGE




Lth. in.	Bastard Square Edge	Per Dozen Second Cut Square Edge	Smooth Square Edge	Wt. dz., lbs.
4	\$ 3.00	\$ 3.50	\$.....	1½
5	3.20	3.80	.....	1
6	3.50	4.00	4.50	1½
8	4.30	4.90	5.40	3
10	5.60	6.40	7.00	6
12	7.50	8.60	9.40	12
14	10.70	12.20	13.10	15
16	14.70	16.80	17.90	17

MILL BASTARD
WITH ONE ROUND EDGE


Length, in.	Per dozen	Wt. per doz., lbs.
6	\$ 3.90	1½
8	4.80	3
10	6.30	6
12	8.40	12
14	12.00	15

WITH TWO ROUND EDGES




Length, in.	Per dozen	Wt. per doz., lbs.
6	\$ 4.40	1½
8	5.40	3
10	7.00	6
12	9.40	12

All above,


4 to 10 inches, one dozen in a box;
12 to 18 inches, one-half dozen in a box.

PILLAR BASTARD



Lth. in.	Pillar Bastard	Per Dozen Pillar Second Cut	Pillar Smooth	Wt. dz., lbs.
6	\$ 4.30	\$ 5.10	\$ 5.60	2½
8	5.40	6.30	6.70	4
10	7.50	8.70	9.40	8
12	10.70	12.30	13.50	12

WARDING BASTARD




Lth. in.	Warding Bastard	Per Dozen Warding Second Cut	Warding Smooth	Wt. dz., lbs.
4	\$ 4.00	\$ 4.80	\$ 5.40	1½
5	4.50	5.30	5.80	¾
6	4.90	5.90	6.40	1
8	6.40	7.50	8.20	2
10	8.70	10.10	11.00	4

KNIFE BASTARD




Lth. in.	Knife Bastard	Per Dozen Knife Second Cut	Knife Smooth	Wt. dz., lbs.
4	\$ 5.40	\$ 6.10	\$ 6.40	1½
5	6.10	6.70	7.10	1
6	6.90	7.50	7.90	1½
8	8.50	9.10	9.50	2
10	10.10	11.50	12.30	6
12	13.70	15.20	16.10	8

PLANER KNIFE




Length, in.	8	10
Wt. per dozen, lbs.	3	6
Per dozen	\$6.40	8.60

REGULAR TAPER SAW, SINGLE CUT



Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
3	\$2.10	¾	6	\$ 3.40	2
3½	2.10	¾	7	4.30	3
4	2.20	¾	8	5.40	4½
4½	2.40	1½	10	8.10	7
5	2.60	1½	12	12.50	12
5½	3.00	1½			

SLIM TAPER SAW, SINGLE CUT



Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
3	\$2.10	¾	5½	\$2.90	¾
3½	2.10	¾	6	3.10	1¼
4	2.20	¾	7	3.80	2
4½	2.30	¾	8	4.50	3
5	2.50	¾			

All above, 4 to 10 inch, one doz. in a box.
12 inch one-half dozen in a box.

FILES

NUCUT AND PREMIER EXTRA SLIM TAPER SAW SINGLE CUT

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
4	\$2.20	1/4	6	\$3.10	3/4
4 1/2	2.30	3/8	7	3.80	1
5	2.50	1/2	8	4.50	1 1/2
5 1/2	2.90	5/8			

DOUBLE EXTRA SLIM TAPER SAW SINGLE CUT

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
5	\$2.50	3/8	7	\$3.80	3/4
5 1/2	2.90	1/2	8	4.50	1
6	3.10	5/8			

DOUBLE END TAPER SAW

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
7	\$3.90	1	9	\$4.40	2
8	3.90	1 1/2	10	4.90	2 1/4
			12	6.00	4

REGULAR BLUNT BAND SAW

Length, in.	Per dozen	Wt. per doz., lbs.
6	\$4.70	1 1/2
8	6.70	3
10	9.70	6

SLIM BLUNT BAND SAW

Length, in.	Per dozen	Wt. per doz., lbs.
6	\$3.90	1 1/4
8	5.30	2 1/2

TAPER BAND SAW

Length, in.	Per dozen	Wt. per doz., lbs.
6	\$4.70	1 1/4
8	6.70	2 1/2
10	9.70	5 1/2

SLIM TAPER BAND SAW

Length, in.	Per dozen	Wt. per doz., lbs.
6	\$3.90	1 1/4
8	5.30	3

All above, one dozen in a box.

FILES

NUCUT AND PREMIER CANT OR LIGHTNING SAW

For Filing Cross Cut Saws.

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
6	\$5.40	1 1/2	10	\$ 8.70	5
8	6.40	3	12	11.40	8

GREAT AMERICAN CROSS CUT

For Filing Cross Cut Saws.

Length, in.	Per dozen	Wt. per doz., lbs.
8	\$7.50	3 1/2
10	9.10	6

HALF ROUND CABINET

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
8	\$10.10	5	12	\$18.70	14
10	13.70	9	14	24.80	16

FLAT FLOAT OR BABBITT

For Lead, Babbitt, Solder, Aluminum and Wood

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
6	\$4.80	2	12	\$11.80	14
8	6.30	4	14	16.00	20
10	8.60	8	16	21.50	24

All above,
6 to 10 inch, one dozen in a box.
12 to 16 inch, one-half dozen in a box.

AUGER BIT

Double End
One end cut on sides, other end on edges.
Length, inches 7
Weight, dozen, lbs. 1 1/4
Per dozen \$6.50

One dozen in a box.

PLATINUM POINT

With Round Handle
For cleaning contact points on spark plugs, magnetos, coils, etc.
Length over all, inches 6 3/4
Length blade, inches 3 3/4
Per dozen \$3.50

RASPS

NUCUT AND PREMIER FLAT WOOD

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
8	\$ 9.40	5	14	\$23.20	18
10	12.80	7	16	30.80	26
12	17.50	12	..	.....	..

HALF ROUND CABINET

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
8	\$12.80	4	12	\$22.80	10
10	17.50	6	..	.....	..

HALF ROUND WOOD

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
8	\$10.10	4	12	\$18.70	10
10	13.70	6	14	24.80	14

HALF ROUND SHOE

For leather and other similar materials.

Length, in.	Wt. doz., lbs.	Per dozen
8	5	\$10.10
10	10	13.70

PLAIN HORSE

Coarse rasp cut on one face, coarse double cut file cut on reverse face, coarse single cut on edges.

Lth. in.	Per dozen	Wt. dz., lbs.	Lth. in.	Per dozen	Wt. dz., lbs.
14	\$17.80	20	18	\$32.90	42
16	24.40	29	..	.....	..

TANGED HORSE

Length, in.	Per dozen	Wt. per doz., lbs.
14	\$23.10	28
16	32.20	36

All above,
6 to 10 inch, one dozen in a box.
12 to 18 inch, one-half dozen in a box.

HELLER HORSE TOOTH

Per dozen
No. 3—Adjustable float, 20 in. long, polished hardwood handle; wt. each 1 1/4 lbs. \$36.00
One in a box.

HORSE TOOTH FLOATS

Per dozen
No. 7—Rasp cut, will fit No. 3 Horse Tooth
Rasp \$7.00
One dozen in a box.

SWISS PATTERN FILES

AMERICAN SWISS FILE AND TOOL CO.

HAND

Length, in.	3	4	5	6	8	10	12	14
Nos. 00 & 0.....Dz.	\$3.70	3.70	4.20	4.90	7.00	9.30	12.30	15.50
Nos. 1 & 2.....Dz.	3.90	3.90	4.60	5.40	7.70	10.40	13.80	17.40
Nos. 3 & 4.....Dz.	4.30	4.30	5.20	6.30	8.60	11.50	15.40	19.40
No. 6.....Dz.	5.20	5.20	6.30	7.60	9.60	13.40	17.60	21.00

PILLAR

Length, in.	3	4	5	6	8	10	12
Nos. 00 & 0.....Dz.	\$3.00	3.00	3.20	3.40	4.80	6.60	9.00
Nos. 1 & 2.....Dz.	3.10	3.10	3.40	3.70	5.20	7.00	9.80
Nos. 3 & 4.....Dz.	3.40	3.40	3.80	4.30	6.00	8.40	11.20
No. 6.....Dz.	4.30	4.30	4.80	5.30	7.20	10.00	13.00

NARROW PILLAR

Length, in.	3	4	5	6	8	10	12
Nos. 00 & 0.....Dz.	\$3.00	3.00	3.20	3.40	4.80	6.60	9.00
Nos. 1 & 2.....Dz.	3.10	3.10	3.40	3.70	5.20	7.00	9.80
Nos. 3 & 4.....Dz.	3.40	3.40	3.80	4.30	6.00	8.40	11.20
No. 6.....Dz.	4.30	4.30	4.80	5.30	7.20	10.00	13.00

EXTRA NARROW PILLAR

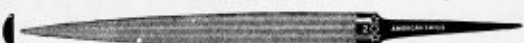
Length, in.	3	4	5	6	8	10	12
Nos. 00 & 0.....Dz.	\$3.00	3.00	3.20	3.40	4.80	6.60	9.00
Nos. 1 & 2.....Dz.	3.10	3.10	3.40	3.70	5.20	7.00	9.80
Nos. 3 & 4.....Dz.	3.40	3.40	3.80	4.30	6.00	8.40	11.20
No. 6.....Dz.	4.30	4.30	4.80	5.30	7.20	10.00	13.00

SQUARE

Length, in.	3	4	5	6	8	10	12	14
Nos. 00 & 0.....Dz.	\$3.40	3.80	4.20	5.00	6.00	7.40	8.80	12.00
Nos. 1 & 2.....Dz.	3.50	4.00	4.50	5.40	6.80	9.00	11.20	15.40
Nos. 3 & 4.....Dz.	3.60	4.40	5.20	6.20	8.40	10.80	14.00	17.40
No. 6.....Dz.	3.80	4.80	6.00	7.40	10.20	13.20	17.00	19.40

ROUND

Length, in.	3	4	5	6	8	10	12	14
Nos. 00 & 0.....Dz.	\$2.50	2.80	3.40	4.00	5.80	7.80	10.00	12.60
Nos. 1 & 2.....Dz.	2.70	3.00	3.70	4.40	6.20	8.60	11.30	14.40
Nos. 3 & 4.....Dz.	2.90	3.20	4.00	4.80	6.60	9.60	13.70	17.50
No. 6.....Dz.	3.20	3.60	4.40	5.20	7.30	11.20	16.80	19.50

HALF ROUND

Length, in.	3	4	5	6	8	10	12
Nos. 00 & 0.....Dz.	\$4.50	5.10	5.90	6.80	10.00	13.30	17.20
Nos. 1 & 2.....Dz.	5.00	6.00	7.00	8.00	11.30	14.60	18.40
Nos. 3 & 4.....Dz.	5.90	6.90	8.10	9.20	12.70	16.80	20.90
No. 6.....Dz.	7.40	8.40	10.40	11.60	15.20	19.60	24.00

CROSSING

Length, in.	3	4	5	6	8	10	12
Nos. 00 & 0.....Dz.	\$5.20	5.60	6.30	7.60	11.30	15.00	19.00
Nos. 1 & 2.....Dz.	5.60	6.20	7.20	8.60	12.40	16.40	21.10
Nos. 3 & 4.....Dz.	6.40	7.20	8.40	9.80	13.80	19.00	23.80
No. 6.....Dz.	7.80	9.00	10.40	12.00	16.20	23.00	28.20

KNIFE

Length, in.	3	4	5	6	8
Nos. 00 & 0.....Dz.	\$4.00	4.40	4.80	6.00	8.60
Nos. 1 & 2.....Dz.	4.40	5.00	5.60	7.00	9.80
Nos. 3 & 4.....Dz.	4.80	5.60	6.60	8.00	11.40
No. 6.....Dz.	5.40	6.60	8.40	10.50	15.00

BARRETTE

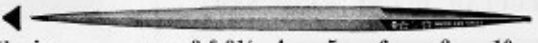
Length, in.	3	4	5	6	8
Nos. 00 & 0.....Dz.	\$5.00	5.50	6.00	6.60	8.60
Nos. 1 & 2.....Dz.	5.10	5.60	6.20	7.00	9.20
Nos. 3 & 4.....Dz.	5.30	5.80	6.60	7.60	10.00
No. 6.....Dz.	5.50	6.00	7.10	8.40	11.00

EQUALLING

Length, in.	3	4	5	6	8
Nos. 00 & 0.....Dz.	\$3.20	3.60	4.00	4.40	6.00
Nos. 1 & 2.....Dz.	3.50	4.00	4.40	4.90	6.60
Nos. 3 & 4.....Dz.	3.90	4.40	5.00	5.60	7.60
No. 6.....Dz.	4.40	5.40	6.20	7.00	9.00

WARDING

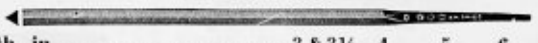
Length, in.	3	4	5	6	8	10
Nos. 00 & 0.....Dz.	\$2.80	3.20	3.80	4.60	6.20	8.20
Nos. 1 & 2.....Dz.	3.00	3.60	4.40	5.30	6.90	9.50
Nos. 3 & 4.....Dz.	3.30	4.10	5.10	6.10	8.10	11.50
No. 6.....Dz.	3.80	4.80	6.00	7.00	9.60	13.50

THREE SQUARE

Length, in.	3 & 3 1/2	4	5	6	8	10	12
Nos. 00 & 0.....Dz.	\$3.90	3.90	4.30	4.80	6.20	8.40	13.00
Nos. 1 & 2.....Dz.	4.20	4.20	4.70	5.20	6.80	9.10	13.50
Nos. 3 & 4.....Dz.	4.50	4.50	5.20	5.90	7.60	10.40	14.50
No. 6.....Dz.	5.00	5.00	5.80	6.60	9.00	12.20	16.00

CANT

Length, in.	3	4	5	6	8
Nos. 00 & 0.....Dz.	\$6.70	6.70	7.70	7.70	9.70
Nos. 1 & 2.....Dz.	7.50	7.50	8.60	8.60	10.60
Nos. 3 & 4.....Dz.	8.80	8.80	10.00	10.00	12.00
No. 6.....Dz.	9.50	9.50	11.00	12.00	14.00

METAL SAW

Length, in.	3 & 3 1/2	4	5	6	8
Nos. 00 & 0.....Dz.	\$3.90	3.90	4.30	4.80	6.20
Nos. 1 & 2.....Dz.	4.20	4.20	4.70	5.20	6.80
Nos. 3 & 4.....Dz.	4.50	4.50	5.20	5.90	7.60
No. 6.....Dz.	5.00	5.00	5.70	6.60	8.30

CROCHET

Length, in.	3	4	5	6	8	10
Nos. 00 & 0.....Dz.	\$4.50	5.00	5.80	6.80	9.60	12.80
Nos. 1 & 2.....Dz.	4.80	5.40	6.30	7.40	10.40	13.80
Nos. 3 & 4.....Dz.	5.40	6.00	7.00	8.20	11.20	14.80
No. 6.....Dz.	6.00	7.00	7.80	9.60	13.00	16.80


ROUND PARALLEL, STRAIGHT

Length, in.	4	5	6	8
Nos. 00 & 0.....Dz.	\$2.80	3.50	4.20	6.70
Nos. 1 & 2.....Dz.	3.00	3.90	4.80	7.40
Nos. 3 & 4.....Dz.	3.20	4.30	5.40	8.20

One dozen in a box up to and including 8 inch, balance one-half dozen in a box.


SWISS PATTERN FILES
AMERICAN SWISS FILE & TOOL CO.

SLITTING



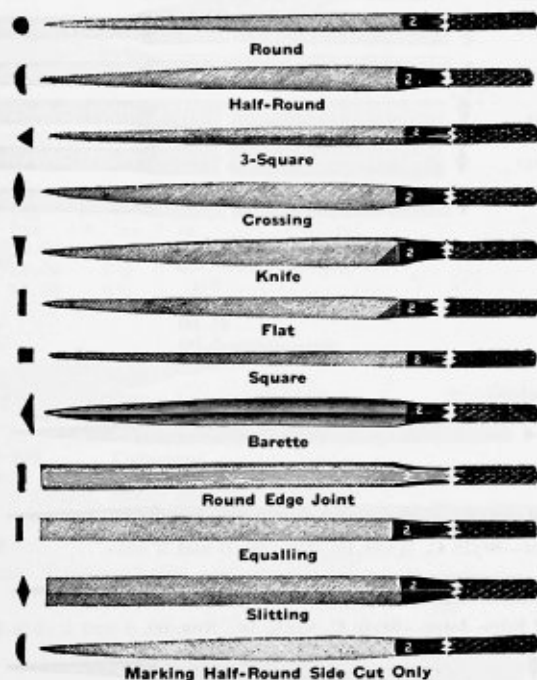
Length, in.	4	5	6	8
Nos. 00 & 0.....Per Dz.,	\$5.60	7.40	8.80	10.60
Nos. 1 & 2.....Per Dz.,	6.60	8.40	10.00	11.80
Nos. 3 & 4.....Per Dz.,	7.60	9.60	11.20	13.20
No. 6.....Per Dz.,	8.00	10.60	12.20	15.00

PIPPIN



Length, in.	3	4	6	8
Nos. 00 & 0.....Per Dz.,	\$4.60	5.40	7.40	10.00
Nos. 1 & 2.....Per Dz.,	5.00	5.80	8.00	10.60
Nos. 3 & 4.....Per Dz.,	5.60	6.40	8.80	11.40
No. 6.....Per Dz.,	6.00	7.00	10.00	13.50

ROUND HANDLE NEEDLE




Length, inches	4	4½	5½	6¼
Per dozen	\$2.50	2.80	3.20	3.50

ROUND HANDLE NEEDLE, IN SETS

4 in. Assorted—Per set of 12.....	\$2.50
4½ in. Assorted—Per set of 12.....	2.80
5½ in. Assorted—Per set of 12.....	3.20
6¼ in. Assorted—Per set of 12.....	3.50

All above, one dozen in a box.

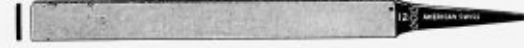
ROUND EDGE JOINT



Nos. 0 & 2 Cuts

Length, inches	3	4	5	6	8
Thickness B & S Gauge.....	14	9	11	10	8
Thickness B & S Gauge.....	16	to	13	12	10
Thickness B & S Gauge.....	18	26	15	14	12
Thickness B & S Gauge.....	20	..	18	16	..
Width, inches	¾	⅞	1½	1¾	¾
Per dozen	\$3.00	3.40	4.20	5.20	7.40

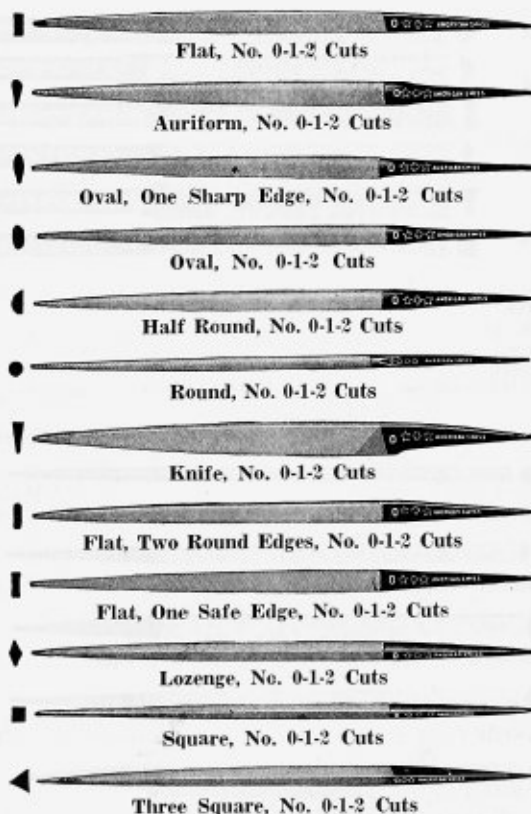
SQUARE EDGE JOINT



Nos. 0 & 2 Cuts

Length, inches	3	4	5	6	8
Thickness B & S Gauge.....	16	14	11	10	8
Thickness B & S Gauge.....	18	16	13	12	10
Thickness B & S Gauge.....	..	18	15	14	12
Thickness B & S.....	..	20	..	16	..
Width, inches	¾	⅞	1½	1¾	¾
Per dozen	\$2.80	3.20	4.00	5.00	6.80

DIE SINKERS



Length, inches	3½
Per dozen	\$4.40

DIE SINKERS, IN SETS

Assorted—Per set of 12.....	\$4.40
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Note—Always state number of cut wanted.

SWISS PATTERN FILES

AMERICAN SWISS FILE AND TOOL CO.

SQUARE HANDLE ESCAPEMENT



Length, in.	5 1/4	Per dozen
Per dozen, Cuts Nos. 0, 1 and 3.....	\$3.30	

ESCAPEMENT FILES IN SETS

5 1/4 Inch Assorted—Per set of 8, one each of above patterns.....	\$2.20	Per set
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DIE SINKERS' RIFFLERS



18 Assorted Styles and Shapes in a Set

Length, in.	6	6 1/4	7
Per set, cuts Nos. 0, 2 and 4.....	\$11.25	12.00	12.75

SILVERSMITHS' RIFFLERS

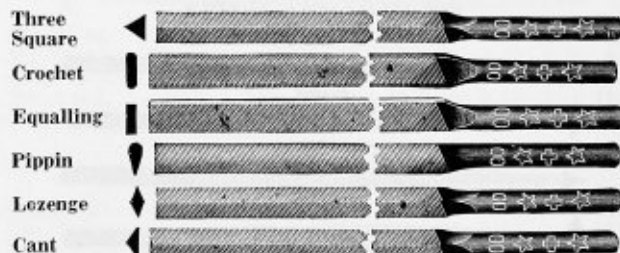
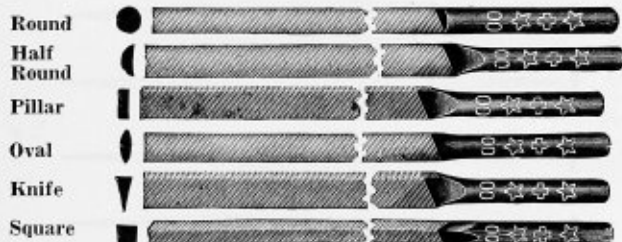


12 Assorted Styles and Shapes in a Set

Length, in.	7 1/4
Per set, cuts Nos. 0 and 2.....	\$10.80

BENCH FILING MACHINE FILES

PARALLEL



Styles	A	B
Cut Nos.	00, 0, 2	00, 0, 2
Length, in.	3 1/4	3 1/4
Diameter, in.	1/4	1/4
Per dozen	\$5.00	4.50
Per dozen, assorted, one each of above shapes.....	5.00	4.50

Length of Cut 5 Inches

Round—Style C, 1/4 in. diameter, Nos. 00, 0 and 2 cuts....	\$6.40	Per dozen
Half Round—Style C, 1/4 in. wide, Nos. 00, 0, 2 cuts.....	\$6.40	
Pillar—Style C, 1/4 x 3/8 in., Nos. 00, 0 and 2 cuts.....	\$6.40	
Oval—Style C, 1/4 in. wide, Nos. 00, 0 and 2 cuts.....	\$6.40	
Knife—Style C, 3/8 in. wide, Nos. 00, 0 and 2 cuts.....	\$6.40	
Square—Style C, 1/4 in. wide, Nos. 00, 0 and 2 cuts.....	\$6.40	

Three Square—Style C, 1/4 in. wide, Nos. 00, 0, 2 cuts.....	\$6.40	Per dozen
Crochet—Style C, 1/4 x 5/8 in., Nos. 00, 0 and 2 cuts.....	\$6.40	
Round Edge Joint—Style C, 1/4 x 1/8 in., Nos. 00, 0 and 2 cuts.....	\$6.40	
Pippin—Style C, 5/8 in. wide, Nos. 00, 0 and 2 cuts.....	\$6.40	
Lozenge—Style C, 5/8 x 3/8 in., Nos. 00, 0 and 2 cuts.....	\$6.40	
Crossing—Style C, 3/8 x 5/8 in., Nos. 00, 0 and 2 cuts.....	\$6.40	

No. C Set—12 assorted shapes, one each of above styles.....	\$8.40	Per set
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Note—When ordering machine files, always state number of cut wanted.

All above, one dozen in a box.

**PLIERS
UTICA**



Linemen's Heavy Side Cutting

Drop forged, sharp cutter, knurled handles. Blued finish.

No. 1950

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
6	\$20.40	5 1/4	8	\$27.60	13 1/2
7	24.00	9 1/4	9	37.20	15 1/2



Standard Side Cutting

Drop forged, sharp cutters, knurled handles. Blued finish.

No. 50

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
5	\$13.80	3 1/4	7	\$16.80	7 3/4
6	15.00	6 1/4	8	18.00	10 1/4



Regular Side Cutting

Drop forged, sharp cutters. Smooth handles. Black finish.

No. 1050

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4	\$10.80	2	7	\$14.40	7 3/4
5	12.00	3 1/4	8	15.60	10 3/4
6	13.20	6 1/4			



Universal

Drop forged, sharp side and wire cutters, burner grip, screw driver knurled handles. Blued finish.

Per dozen
No. 700—Length 7 inches; wt. per dozen
8 1/2 lbs.\$13.80



Flat Nose Burner

Drop forged, knurled handles. Blued finish.

Per dozen
No. 25—Length 5 1/2 in.; wt. per
dozen 3 3/4 lbs.\$15.60

All above, one in a box.

**PLIERS
UTICA**



Insulated Handles Side Cutting

Drop forged, box joint, vulcanized rubber handles sharp cutter. Blued finish.

No. 4050

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
6	\$40.80	8	8	\$55.80	12
7	48.00	10			



Long Chain Nose Side Cutting

Drop forged sharp cutter, knurled handles. Blued finish.

No. 654

Length, inches	Per dozen	Wt. per doz., lbs.
5 1/2	\$18.60	3
6	20.40	4



**Short Chain Nose, Mechanics',
Side Cutting**

Drop forged, sharp cutters, knurled handles. Blued finish.

Per dozen
No. 622—Length 5 inches; wt. per
dozen 2 3/4 lbs.\$15.60



Long Chain Nose

Drop forged, knurled handles. Blued finish.

No. 1033

Length, inches	Per dozen	Wt. per doz., lbs.
5 1/2	\$15.60	3
6	18.00	3 1/2



Long Needle Nose

Drop forged, knurled handles. Blued finish.

Per dozen
No. 777—Length 5 1/2 inches; wt.
per dozen 2 3/4 lbs.\$19.80

All above, one in a box.

**PLIERS
UTICA**



Curved Needle Nose

Drop forged, knurled handles. Blued finish.

Per dozen
No. 888—Length 5 1/2 in.; wt. per
dozen 2 3/4 lbs.\$21.00



Flat Nose

Drop forged. Smooth handles. Blued finish.

No. 20

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4	\$11.40	1 1/2	5 1/2	\$13.20	3 1/4
4 1/2	12.00	2	6	13.80	4 1/2
5	12.60	2 3/4			



Round Nose

Drop forged, plain handles. Blued finish.

No. 21

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4	\$11.40	1 1/2	5 1/2	\$13.20	3 1/4
4 1/2	12.00	2	6	13.80	4 1/2
5	12.60	2 3/4			



Chain

Drop forged, plain handles. Blued finish.

No. 22

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4	\$11.40	1 1/2	5 1/2	\$13.20	3 1/4
4 1/2	12.00	2	6	13.80	4 1/2
5	12.60	2 3/4			



Flat Jaw, Duck Bill

Drop forged, smooth handles. Blued finish.

Per dozen
No. 86—Length 5 1/2 inches; wt. per
dozen 4 3/4 lbs.\$16.80

All above, one in a box.

PLIERS UTICA



Diagonal Cutting

Drop forged, knurled handles, blued finish.

No. 42

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
4	\$19.80	2	5½	\$24.00	3¼
4½	20.40	2¼	6	25.80	4¼
5	22.20	3			



Giant Diagonal Cutting

Drop forged, knurled handles. Blued finish.

Per dozen

No. 40—Length 7 in.; wt. per doz.
7 lbs.\$18.00



Giant Button, Wire Cutter

Drop forged, knurled handles. Blued finish.

No. 1000

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
6	\$10.80	6¾	10	\$17.40	17¾
8	13.20	10½			



Gas Pipe and Burner

Drop forged, knurled handles. Blued finish.

No. 1300

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
5	\$ 9.60	4	8	\$14.40	9¾
6	10.80	5	10	16.80	15¼
7	12.00	6¾			



Fence and Staple Puller

Drop forged, knurled handles, cuts, splices and stretches wire, drives and pulls staples. Blued finish.

Per dozen

No. 1932—Length 10¼ in.; wt. per dozen 16 lbs.\$18.60

All above, one in a box.

PLIERS KRAEUTER



Hy-Power, Side Cutting

Drop forged, Don't-Slip handles. Kraeuter finish.

No. 1801

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
6	\$21.00	5¾	8½	\$27.00	11½
7	24.00	8¼			



Flat Nose, Side Cutting Auto Electricians'

Drop forged, Don't-Slip handles. Kraeuter finish.

No. 1831

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
6½	\$18.60	5¾	8	\$21.60	9½
7	19.80	6¾			



Side Cutting

Drop forged, Don't-Slip handles. Kraeuter finish.

No. 1821

Length, inches	Per dozen	Wt. per doz., lbs.
6½	\$18.60	5¾
7½	19.80	7¾



Buttons Pattern, Wire Cutter

Drop forged, Don't-Slip handles. Pipe gripping jaws. Kraeuter finish.

No. 1841

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
6½	\$13.20	6¼	10	\$19.80	14
8	16.80	9¾			



Needle Nose

Drop forged, Don't-Slip handles. Kraeuter finish.

No. 1671—Length 6 in.; wt. per dozen 3¼ lbs.\$16.80

All above, one in a box.

PLIERS KRAEUTER



Needle Nose, Side Cutting

Drop forged, Don't-Slip handles. Blued finish.

Per dozen

No. 1661—Length 6 in.; wt. per dozen 3¼ lbs.\$18.00

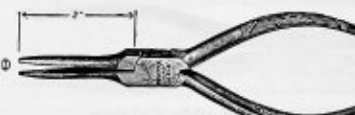


Extra Long Nose, Side Cutting

Drop forged, Don't-Slip handles. For radiator repair work and auto mechanics. Blued finish.

Per dozen

No. 1781—Length 7 in.; wt. per dozen 3½ lbs.\$19.80



Long Fine Needle Nose

Drop forged, Don't-Slip handles. Kraeuter finish.

Per dozen

No. 1621—Length, 6 in.; wt. per dozen 3¼ lbs.\$16.20



Curved Needle Nose

Drop forged, Don't-Slip handles. Kraeuter finish.

Per dozen

No. 1631—Length 5½ in.; wt. per dozen 2¼ lbs.\$19.20



Electricians' Diagonal Cutting

Drop forged, Don't-Slip handles. Kraeuter finish.

No. 4601

Lth. in.	Per doz.	Wt. per doz., lbs.	Lth. in.	Per doz.	Wt. per doz., lbs.
4½	\$19.80	2	5½	\$22.80	3¼
5	21.00	3	6	24.00	5

All above, one in a box.

PLIERS KRAEUTER



Griptite Combination Slip Joint, Wire Cutter

Drop forged. Don't-Slip handles. Nickel plated finish.

No. 356					
Lgth., in.	Per dozen	Wt. per doz., lbs.	Lgth., in.	Per dozen	Wt. per doz., lbs.
5½	\$9.60	3½	8	\$13.20	8½
6	10.20	5¼	10	16.80	10



Combination Side Cutting Slip Joint, Cotter Pin Holder

Drop forged. Don't-Slip handle. Nickel plated finish.

No. 1973—Length 7 in.; wt. per dozen 6¼ lbs.		
	Per dozen	\$22.80



Bent Nose, Combination Slip Joint

Drop forged. Don't-Slip handles. Nickel plated finish.

No. 1923		
Length, in.	Per dozen	Wt. per doz., lbs.
8	\$19.20	8½
10	20.40	12½

CRESCENT



Motor Kit, Combination Slip Joint

Drop forged, knurled handles. Nickel plated finish.

Nos.	Per dozen	Length, in.	Cap., in.	Wt. per doz., lbs.
G25	\$6.00	5	¾	2½
G26	6.00	6	1	6
G28	7.20	8	1¼	7½
G310	10.20	10	1½	12



Cee Tee Co., Combination Slip Joint

Drop forged. Knurled handles. Nickel plated finish.

Nos.	Per dozen	Length, in.	Cap., in.	Wt. per doz., lbs.
H25	\$3.60	5	¾	2½
H26	3.60	6	1	6
H28	5.40	8	1¼	7½
H210	7.80	10	1½	12

All above, one in a box.

PLIERS CRESCENT



Universal, Slip Joint

Drop forged. Knurled handles. Nickel plated finish.
Capacity 1 inch.

No. D27—Length 7 in.; weight per dozen 6¼ lbs.		
	Per dozen	\$7.20



Thin Straight Nose Slip Joint

Drop forged, knurled handles. Nickel plated finish.

Nos.	Per dozen	Length, in.	Cap., in.	Wt. per doz., lbs.
L25	\$6.00	5	¾	2¼
L26	6.00	6	1	3¼



Thin Bent Nose, Slip Joint

Drop forged, knurled handles. Used in places difficult to get at. Nickel plated finish. Capacity 1 inch.

No. J26—Length 6 in.; weight per dozen 5¼ lbs.		
	Per dozen	\$7.20

KLEIN



Linemen's Side Cutting

Drop forged, sharp cutters. Smooth blued finish handles. Checkered finish.

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
201-6	\$27.00	6	5
201-7	31.80	7	7½
201-8	34.80	8	12
201-9	42.60	9	12½



Long Nose, Side Cutting

Drop forged, sharp cutters. ⅜ in. round point, for electricians use. Smooth blued handles, polished head.

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
203-5	\$22.80	5	2¼
203-6	25.20	6	3

All above, one in a box.

PLIERS KLEIN



Long Nose

Drop forged, ⅜ in. round point. For electricians use. Smooth blued handles. Polished head.

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
301-5	\$19.20	5	2¼
301-6	21.00	6	3



Electricians' Diagonal Cutting

Drop forged, sharp cutters. Smooth blued finish handles, polished head.

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
202-5	\$21.60	5	4
202-6	24.00	6	4¼

CRESTOLOY



Diagonal Cutting

Forged Crestoloy steel, knurled gun metal finish handles. Polished head.

No. 942		
Length, in.	Per dozen	Wt. per doz., lbs.
5	\$18.00	4
5½	19.20	5
6	21.00	6

PEXTO



Linemen's Side Cutting

Forged steel, sharp cutters, knurled handles, full polished.

No. 500		
Length, in.	Per dozen	Wt. per doz., lbs.
6	\$24.90	6
7	29.40	9
8	34.00	12½



Star rivet. Side cutting. Forged steel. Sharp cutters, knurled handles, full polished.

No. 30

Lgth., in.	Per dozen	Wt. per doz., lbs.	Lgth., in.	Per dozen	Wt. per doz., lbs.
6	\$27.30	5	8	\$38.70	10½
7	33.40	7½			

All above, one in a box.

PLIERS BERNARD



Linemen's, Side Cutting

Drop forged, sharp cutters. Temper blue finish handles, polished heads.

Length, inches	No. 512 Per dozen	Wt. per doz., lbs.
7	\$33.00	4 $\frac{3}{8}$
8	36.00	6 $\frac{1}{8}$



Side Cutting, Parallel Jaws

Drop forged, sharp cutters, open throat. Compound leverage, hollow knurled handles. Nickel plated.

No. 102

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4 $\frac{1}{2}$	\$18.00	3 $\frac{1}{4}$	6 $\frac{1}{2}$	\$27.00	6 $\frac{3}{8}$
5 $\frac{1}{2}$	21.00	5 $\frac{1}{4}$	8	39.00	11 $\frac{1}{4}$

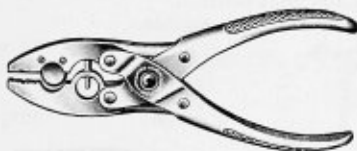


Flat Nose, Parallel Jaws

Drop forged, open throat. Compound leverage, hollow knurled handles. Nickel plated finish.

No. 100

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4 $\frac{1}{2}$	\$12.00	3	6 $\frac{1}{2}$	\$18.00	6 $\frac{1}{4}$
5 $\frac{1}{2}$	15.00	4 $\frac{3}{8}$	8	24.00	12 $\frac{1}{2}$



Round Belt Pliers and Punch Parallel Jaws

Drop forged. Compound leverage, interchangeable screw tubes and cutting blades. Cuts, pierces and hooks round belting. Knurled handles. Nickel plated finish.

No.	Length, inches	Per dozen	Wt. per doz., lbs.
No. 119—Length 6 inches; wt. per	6	\$30.00	8 $\frac{1}{2}$
dozen 5 $\frac{1}{4}$ lbs.	7	36.00	12

All above, one in a box.

PLIERS KRAEUTER



Glass

Forged steel, solid tempered jaws. Smooth handles, Kraeuter finish. For $\frac{3}{8}$ inch glass.

No. 451—Length 8 inches; wt. per	Per dozen
dozen 7 $\frac{3}{4}$ lbs.	\$19.80

CUTTING NIPPERS UTICA



Jewelers', Light Weight

Drop forged, sharp cutters for jewelers, opticians, electricians, etc. Blued finish.

No. 65

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
4	\$16.80	2 $\frac{1}{4}$	5	\$18.00	3 $\frac{1}{2}$
4 $\frac{1}{2}$	17.40	2 $\frac{3}{4}$			

UTICA BULL DOG



Heavy Weight

Drop forged. Sharp cutters for all mechanics on heavy work. Knurled handles. Blued finish.

No. 60

Lth., in.	Per doz.	Wt. per doz., lbs.	Lth., in.	Per doz.	Wt. per doz., lbs.
5	\$13.80	5 $\frac{3}{4}$	7	\$18.00	9
6	15.00	7 $\frac{3}{4}$	8	21.00	12 $\frac{1}{2}$

BERNARD



Spring Action

Drop forged. Sharp cutters, open throat. Multiple leverage construction. Knurled handles. Nickel plated finish.

No. 125

Length, inches	Per dozen	Wt. per doz., lbs.
6	\$30.00	8 $\frac{1}{2}$
7	36.00	12

All above, one in a box.

CUTTING NIPPERS STARRETT ADJUSTABLE



Removable Jaws

Drop forged head and handles, case hardened parts. Jaws can be ground and adjusted when worn. Polished finish.

Nos.	Lth., in.	Each	Jaws open, in.	For
1M	5 $\frac{1}{2}$	\$3.50	$\frac{1}{8}$	M Music Wire
1C	5 $\frac{1}{2}$	3.50	$\frac{1}{8}$	C Comm. use
1B	5 $\frac{1}{2}$	3.50	$\frac{1}{8}$	B Bicycle
1MCB	7	4.50	$\frac{1}{8}$	State jaw wanted
Extra Jaws M, C or B....				Per pair \$0.60
Extra Jaw Screws.....				Per doz. .30
Extra Splines.....				Per doz. .30



Starrett Tile Cut

Drop forged head and handle. Case hardened parts. Tempered steel jaws. Frames cut to allow adjustment for wide opening.

No. 235

Length, inches	Each	Wt. each, oz.
5 $\frac{1}{2}$	\$3.50	9
7	4.50	17

CAREWS



Tool steel jaws, dovetailed into head, easily removed for grinding or for replacement; natural finish with polished head.

Lgth., ins.	Each	Jaws per pair	Jaws, inch	Wt. each lbs.
8	\$4.40	\$1.30	1 $\frac{1}{4}$	1 $\frac{1}{2}$
10	4.85	1.35	1 $\frac{1}{4}$	2
12	5.65	1.45	1 $\frac{1}{2}$	2 $\frac{1}{2}$
14	6.80	1.55	1 $\frac{1}{2}$	3 $\frac{1}{4}$

One in a package.

TODD



Removable tool steel jaws, oil finished steel frame, polished head.

Nos.	Lth., in.	Each	Jaws per pair	Wt. ea., lbs.
6	6	\$2.00	\$0.70	$\frac{7}{8}$
4	8	2.25	.75	1
3	10	2.65	.90	1 $\frac{1}{2}$
1	12	3.35	1.00	2 $\frac{1}{4}$

One in a package.

CUTTING NIPPERS HELLER



Farriers' Standard Pattern

Forged tool steel. Natural finish, polished heads.

Nos.	Per doz.	Length, in.	Wt. per doz., lbs.
24A	\$38.00	12	20
24	45.00	14	28

One-half dozen in a box.

CARPENTERS' PINCERS PEXTO



Hammer Head Pattern

Forged steel, wire cutter between jaws, black finish, polished head.

No. 60

Lth. in.	Per doz.	Width jaws, in.	Wt. per doz., lbs.
6	\$ 7.50	$\frac{5}{8}$	5
8	9.00	$\frac{3}{4}$	10
10	10.50	$\frac{7}{8}$	15

One-half dozen in a box.

FARRIERS PINCERS HELLER



J. I. C. Pattern

Forged steel, natural finish, polished head.

Per dozen

No. 20—Length 14 in.; wt. dozen	
35 lbs.	\$38.00

One-quarter dozen in a box.



Forged steel, natural finish, polished head.

Per dozen

No. 21—Length 12 in.; wt. dozen	
23 lbs.	\$34.00

One-half dozen in a box.

HOOF PARERS HELLER

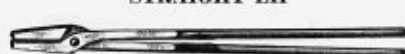


Forged steel, natural finish, polished head.

Nos.	Per doz.	Length, in.	Wt. per doz., lbs.
23	\$45.00	14	28
23A	38.00	18	20

One-half dozen in a box.

BLACKSMITH TONGS STRAIGHT LIP



Drop forged, black finish.

No. 350

Lth., in.	Each lbs.	Wt. each, lbs.	Lth., in.	Each lbs.	Wt. each, lbs.
16	\$1.08	1 $\frac{3}{4}$	22	\$1.24	2 $\frac{3}{4}$
18	1.12	2	24	1.34	3
20	1.18	2 $\frac{1}{2}$			

CURVED LIP OR BOLT



Drop forged, black finish.

No. 351

Lth., in.	Each lbs.	For bolt, in.	Wt. each, lbs.
18	\$1.40	$\frac{3}{8}$	2 $\frac{1}{2}$
20	1.40	$\frac{1}{2}$	2 $\frac{3}{4}$
22	1.64	$\frac{5}{8}$	3
22	1.64	$\frac{3}{4}$	3 $\frac{1}{8}$

GAD FLAT JAW



Drop forged, black finish.

No. 352

Lth., in.	Each lbs.	Wt. each, lbs.	Lth., in.	Each lbs.	Wt. each, lbs.
18	\$1.34	2 $\frac{1}{4}$	22	\$1.62	2 $\frac{1}{2}$
20	1.40	2 $\frac{1}{2}$	24	1.62	2 $\frac{3}{4}$

PICK UP



Drop forged, black finish.

No. 355—Length 22 in.; wt. each	Each
2 $\frac{1}{2}$ lbs.	\$1.80

BOLT CLIPPERS PORTER



"1855" Style

With Clipper Jaws

Tool steel jaws, japanned iron handles. Cuts $\frac{1}{4}$ inch annealed bolts, $\frac{1}{8}$ in. soft rods. Not adjusting, rubber bumpers on handles. For ordinary use.

No. 12X—Length 12 in.; wt. each	Each
1 $\frac{1}{2}$ lbs.	\$3.00

Extra Jaws Per pair 1.60

All above, open stock.

BOLT CLIPPERS PORTER



New Easy Style

Clipper cut. Rigid head.

Tool steel cutters, japanned iron handles. Jaws are beveled one side for close cutting. Adjustable for wear on jaws. Rubber bumpers on handles.

Swivel head clippers can be furnished on order at extra cost.

Nos.	Lth., in.	Each lbs.	Ex. jaws per pr.	Cuts bolts, in.	Cuts rods, in.	Wt. each, lbs.
0-NE	18	\$5.50	\$2.50	$\frac{3}{8}$	$\frac{1}{4}$	3 $\frac{1}{4}$
1-NE	24	7.00	3.20	$\frac{3}{8}$	$\frac{1}{2}$	5 $\frac{1}{4}$
2-NE	30	8.75	4.00	$\frac{1}{2}$	$\frac{3}{8}$	8 $\frac{1}{2}$
3-NE	36	11.25	5.00	$\frac{5}{8}$	$\frac{1}{2}$	12 $\frac{1}{2}$

Open stock.



Hypower—End Cutting Jaws Rigid Head

Tool steel cutters. Japanned iron handles. Jaws are end cutting, designed for cutting bolts or rods close.

Adjustable for wear on jaws, rubber bumpers on handles.

Swivel head clipper can be furnished on order at extra price.

Cuts $\frac{3}{8}$ inch annealed bolts and $\frac{1}{8}$ inch soft rods.

No. 24E—Length 24 in.; wt. each	Each
5 $\frac{1}{2}$ lbs.	\$8.25

Extra Jaws Per pair 4.50

Open stock.

CHAIN CUTTERS PORTER



For Case Hardened Chain Rigid Head

For cutting case hardened chain, not suitable for soft chain.

Japanned iron handles. Adjustable for wear on jaws, rubber bumpers on handles, chain capacities $\frac{1}{2}$ inch.

Swivel head clipper can be furnished on order at extra price.

No. IRC—Length 24 inches; wt. each	Each
5 $\frac{1}{4}$ lbs.	\$7.50

Extra Jaws Per pair 3.90

Open stock.

LINEMENS SPLICING CLAMPS

KLEIN



For Wire and Sleeves

Hammer forged crucible tool steel, spring tempered polished head. Black handles.

Has four round holes for twisting bare wire as follows:

Copper, Nos. 6, 8, 10, 12 B. & S.

Iron, Nos. 8, 10, 12, 14 B. W. S.

Reverse side has four double chambers for twisting sleeves as follows:

Copper, Nos. 8, 10, 12, 14, 17 B. & S.

Iron, Nos. 10, 12, 14, 16, 19, B. W. G.

Each

No. 132-12—Length 9 in.; wt. dozen 10 lbs.\$3.50



For Wire and Sleeves

Hammer forged from tool steel, spring tempered, polished heads. Black handles. This clamp covers complete range of wires handled by telephone and telegraph linemen.

Has one oval hole for guy strand .437x.624 and five round holes for twisting bare wire as follows:

Copper, Nos. 4, 6, 8, 10, 12 B. & S.

Iron, Nos. 6, 8, 10, 12, 14 B. W. G.

Reverse side has five double chambers for sleeves as follows:

Copper, Nos. 6, 8, 10, 12, 14, 17 B. & S.

Iron, Nos. 8, 10, 12, 14, 16, 19 B. W. G.

Each

No. 132-15—Length 11 1/4 in.; wt. dozen 15 1/2 lbs.\$4.75

One in a box.

SLEEVE WRENCHES

CRESCENT



Cadmium plated steel, hickory handle. Length 14 1/2 or 20 inches.

Will accommodate any sleeve. Copper or aluminum up to No. 3/0 solid copper, No. 2/0 stranded copper or No. 1/0 ACSP.

Each

No. 750—Weight each 2 1/4 lbs.\$6.00

Two in a box.

LAG SCREW WRENCHES

KLEIN



Combination

Forged from bar steel. Slot is formed in cross shape and will fit machine bolts, nuts or lag screws from 3/8 to 3/4 inch. Smaller end for 7/8 inch lag bolts or machine screws.

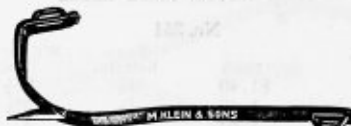
Each

No. 3109-20—Length 13 1/2 in.; wt. per dozen 20 lbs.\$2.50

Open stock.

LINEMENS POLE CLIMBERS

KLEIN



Standard Pattern

Gaff or spur made of forged tool steel, leg iron or shank, spring tempered steel. Punched strap loops.

No. 1901

Size, in.	Per pair	Wt. per pair, lbs.	Size, in.	Per pair	Wt. per pair, lbs.
15	\$3.50	3 1/4	16 1/2	\$3.50	3 3/4
15 1/2	3.50	3 3/8	17	3.50	3 3/4
16	3.50	3 1/2			

Open stock.

LINEMENS CLIMBER STRAPS



Made of harness leather, 1 1/4 in. wide x 22 in. long. Drop forged roller buckles.

Per pair

No. 5301-4—Wt. per pair 8 oz.\$1.45

Open stock.

LINEMENS TOOL BELTS

KLEIN



Made of harness leather, drop forged "D" rings and buckles. 2 1/4 in. wide cushion carries the "D" rings. 1 1/2 in. wide tool loops. Sewed with waxed linen thread. Copper rivets and burrs.

Each

No. 5202—Widths 38, 40, 42, 44 and 46 in.; approximate wt. each 2 1/2 lbs.\$4.75

Open stock.

LINEMENS SAFETY STRAPS

KLEIN



DROP FORGED SNAPS AND BUCKLE

Made of center stock harness leather. Drop forged snaps and buckles. Galvanized finish. Copper rivets. Tested to 1500 lbs., width 1 1/4 inches.

Each

No. 5251—Length 5 ft. 8 in.; weight each 2 1/2 lbs.\$4.85

LINEMENS GRIPS

KLEIN



Havens

Forged crucible tool steel. Hand cut eccentric or dog, hardened and tempered.

Nos.	Each	Openings Max.	Min.	For wire No. 4	Safe load, lbs.
1604-10	\$2.00	.2345	.065	No. 4	2000
1604-20	3.00	.531	.135	1/2 in.	2500

Havens

Improved



Forged crucible tool steel. For wire from No. 6 to 3/4 in. diameter.

Maximum opening .781, minimum opening .2187, safe load 5000 pounds.

Each

No. 1625-20—Weight each 5 1/4 lbs.\$7.00

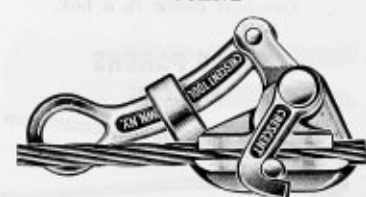
KLEIN'S CHICAGO



Made of forged and wrought steel.

Nos.	Each	For wire, Nos.	Safe load, lbs.
1611-30	\$4.75	00 and smaller	3500
1611-40	7.50	0000 and smaller	3750
1611-50	7.50	0000 triple ins.	3750

CRESCENT



Forged steel, grips tight, will not injure wire. Will not jam. For bare and insulated wire. 3/8 in. max., 1/2 in. min. openings. Safe load 5000 lbs. Cadmium finish.

Each

No. 383—Weight each 2 lbs.\$6.75
All above, open stock.

WRENCHES **COES, GENUINE**



Knife Handle

Hardened steel bar. Semi-steel casting jaws. Screw is one piece of steel with a cut thread of especially strong section handle frame semi-steel casting. Hardwood handle securely riveted to frame. Black finish.

Length, in.	Per dozen	Opens, inch	Wt. per doz., lbs.
6	\$15.00	$\frac{7}{8}$	9
8	18.00	$1\frac{1}{4}$	16
10	22.00	$1\frac{3}{4}$	27
12	28.00	$2\frac{1}{4}$	44
15	38.00	$2\frac{3}{4}$	58
18	48.00	3	79
21	58.00	4	109

6 to 12 in., one-half dozen; 15 and 18 inch, one-third dozen; 21 inch, one-twelfth dozen in a package.



Steel Handle

Hardened steel bar, semi-steel casting jaws. Screw is one-piece of steel with a cut thread of especially strong section. Handle is a semi-steel casting. A wrench for heavy duty work.

Length, in.	Per dozen	Opens, inch	Wt. per doz., lbs.
6	\$15.00	$\frac{7}{8}$	9
8	18.00	$1\frac{1}{4}$	17
10	22.00	$1\frac{3}{4}$	28
12	28.00	$2\frac{1}{4}$	45
15	38.00	$2\frac{3}{4}$	61
18	48.00	3	84
21	58.00	4	115

6 to 12 in., one-half dozen; 15 and 18 inch, one-third dozen; 21 inch, one-twelfth dozen in a package.

COES KEY MODEL



Forged steel, hardened and tested. Self-contained key; cannot come off.

Lth., in.	Each	Opens, in.	Takes pipe union, in.	Wt. lbs.
28	\$34.00	$5\frac{1}{4}$	4	16
36	48.00	$6\frac{1}{2}$	5	25

Open stock.

WRENCHES **TRIMO**



Steel or Wood Handle

Drop forged bar steel handle, frame and jaws; steel nut guards that prevent accidental rotation in close quarters' work; rounded threads on jaw and nut prevent jamming. Specially constructed for railroad and heavy duty work.

Length, in.	Per dozen	Opens, inch	Wt. per doz., lbs.
6	\$15.00	1	6
8	18.00	$1\frac{1}{8}$	15
10	22.00	$1\frac{3}{4}$	22 $\frac{1}{2}$
12	28.00	$2\frac{1}{4}$	40
15	38.00	$2\frac{3}{4}$	60 $\frac{3}{4}$
18	48.00	$3\frac{1}{4}$	84
21	58.00	$4\frac{1}{8}$	109

Six in a box.

PEXTO



Agricultural

Drop forged steel head, bar and shank, steel adjusting screw. With knurled head. One-piece wood handle. Black finish.

No. 5			
Length, in.	Per dozen	Opens, inch	Wt. per doz., lbs.
8	\$12.00	$1\frac{1}{8}$	14 $\frac{1}{2}$
10	14.00	$1\frac{3}{4}$	20
12	18.00	2	28
15	24.00	$2\frac{3}{8}$	42

One-half dozen in a package.

APCO MOSSBERG



Bicycle

Drop forged steel, satin finish.

No.	Length 5 in.; wt. each 4 oz.	Each
No. A-1	\$0.35	

One in a box.

CRESCENT



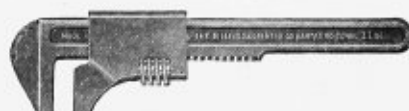
Auto

Drop forged tool steel of special analysis. Polished finish.

Nos.	Each	Length, in.	Cap., in.	Wt. lbs.
019	\$0.75	9	$\frac{3}{8}$	$\frac{7}{8}$
0111	1.25	11	$2\frac{3}{8}$	$1\frac{1}{2}$

One in a box.

WRENCHES **BILLINGS AND SPENCER**



Auto

Drop forged carbon steel.

Nos.	Each	Length, in.	Opens, in.	Wt. ea., lbs.
5	\$0.90	$5\frac{1}{4}$	$1\frac{1}{8}$	$\frac{5}{8}$
7	1.10	$7\frac{1}{2}$	2	$\frac{5}{8}$
9	1.35	9	$2\frac{3}{4}$	$\frac{7}{8}$
11	2.05	11	3	$1\frac{1}{2}$
15	3.75	15	$3\frac{3}{4}$	$3\frac{1}{2}$
18	4.80	18	4 $\frac{3}{4}$	$6\frac{1}{4}$

One in a box.

CARLL



Adjustable, For Nut or Pipe

Drop forged steel, reversible sliding jaws either for nuts or pipe, polished jaws.

Nos.	Per dozen	Length, in.	Jaws open, in.	Wt. per doz., lbs.
60	\$10.80	6	1	4 $\frac{1}{4}$
80	13.00	8	$1\frac{3}{8}$	9 $\frac{3}{4}$
100	16.20	10	$1\frac{3}{4}$	16 $\frac{1}{2}$

One in a box.

MASTERENCH



For Bolts and Nuts

Chrome vanadium steel, black rustproof finish.

Length, in.	Each	Capacity, in.	Wt. ea., lbs.
6	\$1.20	$\frac{1}{2}$ to $\frac{11}{16}$	$\frac{1}{4}$
8	1.50	$\frac{1}{2}$ to $1\frac{1}{16}$	$\frac{1}{2}$
10	2.00	$\frac{1}{2}$ to $1\frac{1}{4}$	$\frac{3}{8}$
14	3.20	$\frac{1}{2}$ to $1\frac{1}{2}$	$2\frac{3}{4}$



For Pipe

Chrome vanadium steel, black rustproof finish.

Length, in.	Each	Pipe cap., in.	Wt. ea., lbs.
6	\$1.25	$\frac{1}{8}$ to $\frac{3}{8}$	$\frac{1}{4}$
8	1.60	$\frac{1}{4}$ to $\frac{3}{4}$	$\frac{5}{8}$
10	2.20	$\frac{3}{8}$ to 1	$\frac{7}{8}$
14	3.60	$\frac{1}{2}$ to $1\frac{1}{2}$	$2\frac{1}{2}$

WRENCHES

BEMIS & CALL



Adjustable "S" Nut

Forged steel sliding jaw; steel operating nut; hardened and tempered parts; japanned handle; polished head.

No. 48			
Length, in.	Per dozen	Opens, in.	Wt. per doz., lbs.
6	\$8.00	$\frac{3}{4}$	6
8	10.00	1	13
10	12.00	$1\frac{1}{8}$	22
12	18.00	$1\frac{5}{8}$	33

One-half dozen in a box.

ROBINSON



Adjustable "S" Nut

Drop forged steel. Sliding jaws, black rustproof finish.

Nos.	Per dozen	Length, in.	Opens, in.	Wt. per doz., lbs.
6R	\$14.40	6	$\frac{3}{4}$	4
8R	18.00	8	1	12
10R	24.00	10	$1\frac{1}{8}$	20

One-half dozen in a box.

WESTCOTT

"Keystone Westcott"



Adjustable "S" Nut

Nos.	Per dozen	Length, in.	Opens, in.	Wt. per doz., lbs.
76	\$8.00	6	$\frac{3}{4}$	$5\frac{1}{4}$
78	10.00	8	1	11
80	12.00	10	$1\frac{1}{8}$	$19\frac{1}{2}$
82	18.00	12	$1\frac{5}{8}$	33
84	24.00	14	2	51

One-half dozen in a box.

CRESCENT REGULAR



Single End Adjustable

Drop forged steel, polished finish.

Nos.	Per dozen	Length, in.	Opens, in.	Wt. per doz., lbs.
A14	\$9.00	4	$\frac{1}{2}$	$1\frac{1}{2}$
A16	9.00	6	$\frac{3}{4}$	$3\frac{1}{2}$
A18	11.40	8	$\frac{7}{8}$	$7\frac{1}{2}$
A110	14.40	10	$1\frac{1}{8}$	$13\frac{1}{2}$
A112	21.00	12	$1\frac{5}{8}$	24
A115	31.80	15	$2\frac{1}{8}$	$51\frac{1}{2}$
A118	45.60	18	$2\frac{5}{8}$	84

One in a box.

WRENCHES

CRESCENT REGULAR



Double End Adjustable

Drop forged steel. Polished finish.

Nos.	Per dozen	Length, in.	Opens, in.	Wt. per doz., lbs.
B146	\$15.60	4-6	$\frac{1}{2}$ - $\frac{3}{4}$	$4\frac{1}{2}$
B168	18.00	6-8	$\frac{3}{4}$ -1	$8\frac{1}{4}$
B1810	21.00	8-10	$\frac{7}{8}$ - $1\frac{1}{8}$	$14\frac{1}{4}$
B11012	28.20	10-12	$1\frac{1}{8}$ - $1\frac{5}{8}$	27

CRESCENT CRESTOLOX

Single End Adjustable
Thin Jaws

Made of Crestolox steel (special analysis) which permits thinness, but has great strength.

Can be used in spaces where a regular wrench cannot enter.

Polished finish.

Specifications

Nos.	Length, in.	Cap., in.	Thickness of head, in.	Tip of Jaws, in.
AC14	4	$\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{32}$
AC16	6	$\frac{3}{4}$	$\frac{1}{32}$	$\frac{1}{32}$
AC18	8	$\frac{7}{8}$	$\frac{1}{32}$	$\frac{1}{32}$
AC110	10	$1\frac{1}{8}$	$\frac{1}{32}$	$\frac{1}{32}$
AC112	12	$1\frac{5}{8}$	$\frac{1}{32}$	$\frac{1}{32}$
AC115	15	$2\frac{1}{8}$	$\frac{1}{32}$	$\frac{1}{32}$
AC124	24	$2\frac{1}{2}$	$\frac{1}{32}$	$\frac{1}{32}$

Nos.	Per dozen	Length, in.	Wt. per doz., lbs.
AC14	\$12.00	4	$1\frac{1}{2}$
AC16	12.00	6	$3\frac{3}{4}$
AC18	15.00	8	6
AC110	18.00	10	$9\frac{1}{8}$
AC112	24.00	12	18
AC115	36.00	15	40
AC124	90.00	24	86

Double End Adjustable
Thin Jaws

Same as single end above but double end. Thickness of head same as above.

Nos.	Per dozen	Length, in.	Cap., in.	Wt. per doz., lbs.
BC146	\$18.00	4-6	$\frac{1}{2}$ - $\frac{3}{4}$	$4\frac{1}{2}$
BC168	21.00	6-8	$\frac{3}{4}$ -1	$6\frac{3}{4}$

All above, one in a box.

WRENCH PARTS

FOR REGULAR CRESCENT ADJUSTABLE WRENCHES



Jaws Knurls Springs Pins

JAWS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
A14J	\$0.25	4	A112J	\$0.60	12
A16J	.25	6	A115J	.85	15
A18J	.30	8	A118J	1.15	18
A110J	.40	10			

KNURLS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
A14K	\$0.10	4	A112K	\$0.25	12
A16K	.10	6	A115K	.35	15
A18K	.12	8	A118K	.55	18
A110K	.15	10			

SPRINGS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
A14S	\$0.05	4	A112S	\$0.05	12
A16S	.05	6	A115S	.05	15
A18S	.05	8	A118S	.05	18
A110S	.05	10			

PINS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
A14P	\$0.05	4	A112P	\$0.10	12
A16P	.05	6	A115P	.10	15
A18P	.05	8	A118P	.10	18
A110P	.05	10			

FOR CRESCENT "CRESTOLOX" ADJUSTABLE WRENCHES

JAWS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
AC14J	\$0.30	4	AC112J	\$0.75	12
AC16J	.30	6	AC115J	1.10	15
AC18J	.40	8	AC124J	2.00	24
AC110J	.50	10			

KNURLS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
AC14K	\$0.13	4	AC112K	\$0.26	12
AC16K	.13	6	AC115K	.30	15
AC18K	.15	8	AC124K	.40	24
AC110K	.20	10			

SPRINGS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
AC14S	\$0.05	4	AC112S	\$0.05	12
AC16S	.05	6	AC115S	.05	15
AC18S	.05	8	AC124S	.05	24
AC110S	.05	10			

PINS

Nos.	Each	Wrench, in.	Nos.	Each	Wrench, in.
AC14P	\$0.05	4	AC112P	\$0.05	12
AC16P	.05	6	AC115P	.05	15
AC18P	.05	8	AC124P	.05	24
AC110P	.05	10			

All above, open stock.

WRENCHES LOWELL



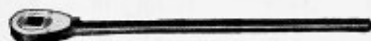
Ratchet, 1916 Pattern

Changed from right to left hand by rotating knurled nut in end of handle.

Specifications

Nos.	Size of openings, in.	
	Square	Hexagon
0	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	$\frac{1}{2}$, $\frac{3}{4}$
1	$\frac{3}{8}$ taper, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$
2	$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{5}{8}$
3	$\frac{5}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$
3½	$\frac{5}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$
4	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$
4½	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$

Nos.	With gear, each	Extra gear, each	Length in.	Wt. ea., lbs.
0	\$ 5.00	\$1.00	7	1
1	6.00	1.00	10	2
2	7.00	1.25	12	3
3	9.00	1.50	15	4½
3½	10.00	1.50	18	5
4	12.00	2.00	18	9
4½	14.00	2.00	24	10½



Bridge Builders Reversible Ratchet

Specifications

Nos.	Size of openings, in.	
	Square	Hexagon
1	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$	$\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$
2	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
3	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
4	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
5	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	$\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{3}{4}$

Nos.	With gear, each	Extra gear, each	Length in.	Wt. ea., lbs.
1	\$14.00	\$ 2.00	36	13
2	16.00	4.00	36	15
3	24.00	6.00	36	22
4	30.00	8.00	42	31
5	35.00	10.00	42	44

All above, open stock.

WRENCHES WILLIAMS



Bull Dog

Drop forged high carbon steel, tempered in oil.

Nos.	Each	Length, in.	Holds pipe, in.	Holds round iron, in.	Wt. per doz., lbs.
2	\$1.00	9	$\frac{1}{4}$ - $\frac{3}{4}$	$\frac{1}{2}$ - 1	9
2½	1.50	12½	$\frac{3}{8}$ - 1	$\frac{5}{8}$ - 1½	16½
3	2.00	16	$\frac{1}{2}$ - 1½	$\frac{3}{4}$ - 1½	38

Open stock.



No. 1½

Bull Dog

Drop forged high carbon steel, tempered in oil.

Nos.	Each	Length, in.	Holds pipe, in.	Holds round iron, in.	Wt. per doz., lbs.
1	\$0.35	5½	$\frac{1}{8}$ - $\frac{3}{8}$	$\frac{1}{4}$ - $\frac{3}{4}$	3
1½	.50	6½	$\frac{1}{8}$ - $\frac{1}{2}$	$\frac{3}{8}$ - $\frac{3}{4}$	3½

No. 1, one dozen in a box; No. 1½, one-half dozen in a box.

BEMIS & CALL



Combination Nut and Pipe

Forged steel, long sleeve nut, hardwood handle.

No. 45		Length, in.	Per dozen	Holds pipe, in.	Wt. per doz., lbs.
8	\$27.00			$\frac{1}{2}$ to $\frac{1}{2}$	14
10	30.00			$\frac{1}{2}$ to $\frac{3}{4}$	24
12	36.00			$\frac{1}{2}$ to 1	38
15	48.00			$\frac{3}{4}$ to 1½	57
18	87.00			$\frac{3}{4}$ to 2	85

One-half dozen in a box.

WARNOCK



For Smooth Pipe

Drop forged handle and shackle. Woven strap. Used on nickel plated pipe, etc.

Nos.	Each	Extra straps, each	Length, in.	Holds pipe, in.
12	\$2.50	\$0.50	12	$\frac{1}{4}$ - 2
18	5.00	1.00	18	1 - 5

One in a box.

WRENCHES RIDGID



Pipe, Steel Handle

Powerful I-beam handle with comfortable grip. Tool steel jaws. The adjusting nut rides free in an open housing, permitting full grip on nut when making adjustments.

Size, in.	Each	For pipe, in.	Wt. each, lbs.
6	\$ 1.90	$\frac{3}{4}$	$\frac{1}{2}$
8	2.20	1	$\frac{3}{4}$
10	2.85	1½	1¾
14	3.85	2	3¼
18	5.50	2½	5
24	9.50	3	8¾
36	20.00	4½	16½
48	45.00	6	27¾

BILLINGS & SPENCER



Chain Pipe, Reversible

The pipe may be moved instantly without removing the wrench or loosening the chain.

It can instantly be converted to a fitting wrench by simply removing outer jaws.

Jaws are double ended and reversible, doubling the life of the wrench.

Handle and jaws drop forged from special open hearth steel and heat treated. Handles have natural oil finish. Black rustproof finish with red painted panels.

Specifications

Nos.	Takes pipe, in.	Length chain, in.	Breaking strain, lbs.
14	$\frac{1}{8}$ - $\frac{3}{4}$	8	3,600
20	$\frac{1}{2}$ - 1½	12½	6,700
27	$\frac{3}{4}$ - 2½	16½	9,800
37	$\frac{3}{4}$ - 4	20¾	12,500
47	1 - 6	30¾	14,300
57	1½ - 8	36¾	15,700

Nos.	Trade Nos.	Each	Length, in.	Wt. ea., lbs.
14	30	\$ 5.00	14	3
20	31	7.00	20	7
27	32	10.00	27	11
37	33	14.00	37	19
47	33½	18.00	47	28
57	34	22.00	57	43

Note—Above list is for wrenches with flat chain. If cable chain is wanted, precede number with letter A

WRENCHES

GENUINE WALWORTH STILLSON



Pipe, Wood Handle

Forged high grade carbon steel, oil tempered and hardened jaws, red lacquered handle.

Length, in.	Each	For pipe, in.	Wt. each, lbs.
6	\$2.00	1/8 to 1/2	1 1/2
8	2.30	1/8 to 3/4	3/4
10	3.15	1/8 to 1	1 1/2
14	4.25	1/4 to 1 1/4	2 3/4

One-half dozen in a box.



Pipe, Steel Handle

Forged high grade carbon steel, oil tempered and hardened jaws, red lacquered handle.

Length, in.	Each	For pipe, in.	Wt. each, lbs.
6	\$1.90	1/8 to 1/2	1 1/2
8	2.20	1/8 to 3/4	3/4
10	2.85	1/8 to 1	1 1/2
14	3.85	1/4 to 1 1/2	2 3/4
18	5.50	1/4 to 2	4 1/4
24	9.50	1/4 to 2 1/2	7 1/4
36	20.00	1/2 to 3 1/2	15
48	45.00	1 to 5	24

6 to 24 in., six in a box; balance, open stock.

EXTRA PARTS



For Wrench, In.	6	8	10	14
Movable jaws...	\$0.65	.70	1.10	1.50
Frames .....	.45	.55	.70	.80
Nuts .....	.15	.15	.20	.30
Frame pins.....	.03	.03	.04	.04
Frame springs...	.10	.10	.10	.10
Wood handles...	.23	.25	.30	.36
Bars				2.20

For Wrench, In.	18	24	36	48
Movable jaws...	\$2.15	3.50	5.70	9.00
Frames .....	.95	1.75	2.75	3.50
Nuts .....	.35	.55	1.10	2.00
Frame pins.....	.04	.04	.05	.05
Frame springs...	.10	.11	.13	.13
Bars	3.25	5.15	10.50	17.00

WRENCHES

NEW TRIMO-ALLOY



Pipe, Wood Handle

Heat treated Chrome-Molybdenum steel. Rounded top and bottom threads on jaws and nuts will not strip or burr. Provided with nut guards.

Length, in.	Each	For pipe, in.	Wt. each, lbs.
6	\$2.00	1/8 to 1/2	1 1/2
8	2.30	1/8 to 3/4	3/4
10	3.15	1/8 to 1	1 1/2
12	3.60	1/8 to 1 1/4	2 1/4
14	4.25	1/4 to 1 1/2	3

Six in a box.



Pipe, Steel Handle

Heat treated Chrome-Molybdenum alloy steel. Rounded top and bottom threads on jaws and nuts will not strip or burr. Provided with nut guards.

Length, in.	Each	For pipe, in.	Wt. each, lbs.
6	\$1.90	1/8 to 1/2	1 1/2
8	2.20	1/8 to 3/4	3/4
10	2.85	1/8 to 1	1 1/2
12	3.35	1/8 to 1 1/4	2 1/4
14	3.85	1/4 to 1 1/2	3
18	5.50	1/4 to 2	5
24	9.50	1/4 to 2 1/2	8 1/2
36	20.00	1/2 to 3 1/2	17
48	45.00	1 to 5	24

6 to 18 in., six in a box; balance, open stock.

EXTRA PARTS



For Wrench, In.	6	8	10	12	14
Reg. jaws.....	\$0.65	.70	1.10	1.25	1.50
Insert jaws.....	.50	.55	.65	.75	.85
Nuts .....	.15	.15	.20	.25	.30
Frames .....	.45	.55	.70	.75	.80
Springs .....	.03	.03	.03	.03	.03
Pins .....	.03	.03	.04	.04	.04
Steel handle...	1.00	1.15	1.60	1.80	2.20
Wood handle...	.23	.25	.30	.35	.36
Nut guards....	.15	.15	.20	.30	.30

For Wrench, In.	18	24	36	48
Reg. jaws.....	\$2.15	3.50	5.70	9.00
Insert jaws.....	.95	1.10	1.50	2.00
Nuts .....	.35	.55	1.10	2.00
Frames .....	.95	1.75	2.75	3.50
Springs .....	.04	.04	.04	.04
Pins .....	.04	.04	.05	.05
Steel handle...	3.25	5.15	10.50	17.00
Nut guards....	.35	.45	.55	.65

Prices each except nut guards which are per pair.

PIPE CUTTERS

BARNES PATTERN



With Three Cutters

Malleable iron frame, steel handles. Japanned finish.

Nos.	Each	Cuts pipe, in.	Length, in.	Wt. each, lbs.
1B	\$4.50	1/8-1	13	3
2B	6.00	1/2-2	16	5
3B	10.00	1 1/2-3	21	9
4B	20.00	2 1/2-4	25	14
5B	30.00	4-6	34	23

EXTRA PARTS

Cutter Nos.	Cutters, each	Pins, per doz.	Cutter Nos.	Cutters, each	Pins, per doz.
1B	\$0.50	\$1.00	4B	\$1.00	\$2.00
2B	.60	1.00	5B	1.10	2.00
3B	.80	1.00			

Open stock.

SAUNDERS PATTERN



With One Cutter and Two Rollers

Malleable iron frame, steel handles. Japanned finish.

Nos.	Each	Cuts pipe, in.	Length, in.	Wt. each, lbs.
1S	\$3.00	1/8-1	16	3
2S	4.50	1-2	20	6 1/4
3S	7.50	2-3	26	11 3/4
4S	15.00	2 1/2-4	28	15

EXTRA PARTS

Cutter Nos.	Cutters, each	Pins, per doz.	Cutter Nos.	Cutters, each	Pins, per doz.
1S	\$0.50	\$1.20	3S	\$1.10	\$1.80
2S	.60	1.20	4S	1.10	1.80

Open stock.

NEW TRIMO



With One Cutter and Two Rollers

Drop forged steel. Cadmium plated.

Nos.	Each	Cuts pipe, in.	Length, in.	Wt. each, lbs.
1	\$5.00	1/8-1 1/4	15 3/4	5 1/4
2	6.00	1/2-2	17 1/2	6
3	10.00	1-3	19 1/2	8 3/4

Cutter Nos.	Wheels each	Rollers each	Pins per doz.
1	\$0.60	\$0.30	\$1.30
2	.60	.30	1.30
3	.90	.40	1.30

Note—Specify if smooth edge or tooth edged wheels are wanted.

SPANNER WRENCHES **BILLINGS & SPENCER**



Model L
Adjustable
Drop forged steel. Easy to adjust. Nos. 0, 1 and 2 round pins. No. 3 square pin.

Nos.	Each	Takes circle, inches	Diam. of pin, inches	Length of pin, inches	Length of wrench, inches	Weight each, oz.
0	\$1.50	3/4-2	7/8	1 1/2	7	3 3/4
1	1.65	2-4	1 1/4	1 1/4	9	7 3/4
2	1.85	2-4	1 1/2	1 1/4	9	9 1/2
3	2.75	2-4 3/4	1 1/4 x 3/8	1 1/4	10 1/2	19 1/2

Open stock.

RADIO SOCKET WRENCHES **BRIDGEPORT**

Radio-Lectric Socket



For radio, auto, telephone mechanics, etc. Socket snaps on shank. Set contains one handle and 1/4, 5/16, 3/8, 1/2 and 5/8 in. sockets.

No. 485—Weight per set 4 oz. Per set \$0.75

One set in a box.

BIT WRENCHES **HARGRAVE**



For brace wrenches or regular brace bit. Holds taper shank bits, fastened by screw, other socket in end of wrench used for double leverage and close corners. Black enameled.

No. 149—Weight per dozen 4 lbs. Per dozen \$6.00

One dozen in a box.

BRACE WRENCHES **HARGRAVE**



Malleable Iron Hardened

Each size is accurately fitted to U. S. Standard nut sizes.

Size opening given is from flat to flat—size marked on wrench.

Square, Hexagon, Nos.		Per dozen	Size openings, inches	Fits machine bolt or nut, inch	Fits machine lag screw head, inch	Fits machine screw nut, inch
152	166	\$3.50	3/8	1/8	1/4	8 & 10
153	167	4.00	1/2	1/4	1/2	12
154	168	4.50	3/4	1/2	3/4	16
155	169	5.00	1	3/4	1	20
156	170	6.00	1 1/4	1	1 1/4	24
1560	171	6.50	1 1/2	1 1/4	1 1/2	28
157	172	7.00	1 3/4	1 1/2	1 3/4	32
158	173	7.50	2	1 3/4	2	36
159	1731	8.00	2 1/4	2	2 1/4	40
160	1732	9.00	2 1/2	2 1/4	2 1/2	44
161	1733	10.00	2 3/4	2 1/2	2 3/4	48

ENGINEERS' WRENCHES **BILLINGS & SPENCER**



15 Degree Angle, Single Head
Drop forged steel, dull black finish, polished heads, hardened.

Heads of wrenches are marked with Nos. and sizes.

Nos.	Trade Nos.	Each	U.S.S. bolt, nut size, in.	Hex. head cap. screw size, in.	S.A.E. std. nut size, in.	Milled openings, in.	Lgth., in.	Thick-ness of head, in.
1000X	...	\$0.28	...	...	...	...	3	3/8
1000A	000	.28	...	...	...	1/4	3 1/2	3/8
1000	00	.28	1/8	...	...	1/8	3 1/2	3/8
1000B	700	.30	...	...	...	3/8	4	1/4
1001	0	.30	1/8	...	...	1/8	4	1/4
1002	701	.36	...	1/4	1/4	1/8	4 1/2	3/8
1003	1	.36	1/4	1/8	1/8	1/2	4 1/2	3/8
1004	702	.44	...	3/8	3/8	1/8	5 1/2	1/2
1005	2	.44	1/8	...	...	1/8	5 1/2	1/2
1006	703	.52	...	1/2	1/2	5/8	6 3/4	1 1/8
1007	3	.52	3/8	...	...	1/8	6 3/4	1 1/8
1008	704	.64	...	1/2	1/2	3/4	7 1/4	3/4
1009	4	.64	1/8	...	...	1/8	7 1/4	3/4
1010	705	.76	...	1/2	1/2	1/8	8 1/4	1 1/8
1011	5	.76	1/2	5/8	5/8	3/4	8 1/2	1 1/8
1012	6	.92	1/8	...	...	1/8	9 1/4	1 1/2
1013	706	.92	...	3/4	3/4	1	9 1/4	1 1/2
1014	7	1.14	5/8	...	...	1 1/8	10 1/2	1 3/8
1015	707	1.14	...	3/4	3/4	1 1/8	10 1/2	1 3/8
1016	8	1.50	3/4	...	...	1 1/4	12	5/8
1017	708A	1.50	...	...	...	1 3/8	12	5/8
1018	9	2.30	7/8	...	...	1 1/2	13 1/2	1 3/8
1019	709	2.30	...	1 1/8	...	...	13 1/2	1 3/8

SET SCREW WRENCHES **BILLINGS & SPENCER**



22 1/2 Degree Angle, Double Heads

Drop forged steel, dull black finish, polished heads, hardened. Heads of wrenches are marked with Nos. and sizes.

Nos.	Trade Nos.	Each	Milled opening for set screw size, in.	Length, in.	Thick-ness of head, in.	Weight each, lbs. oz.
1523	523	\$0.40	3/8- 1/4	3 1/2	1/8	1 1/2
1524	524	.48	1/2- 1/8	4	1/4	1 1/2
1525	525	.48	1/4- 3/8	4	1/4	1 1/2
1526	526	.58	1/4- 3/8	5	1/8	2 1/2
1527	527	.58	1/8- 3/8	5	1/8	2 1/2
1528	528	.70	1/8- 1/2	6	1/8	5
1529	529	.70	1/8- 1/2	6	1/8	5
1530	530	.90	3/8- 1/2	6 3/4	3/8	6 1/2
1531	531	.90	1/2- 1/2	6 3/4	3/8	6 1/2
1532	532	1.08	1/2- 3/4	7 1/2	1/2	9 1/2
1533	533	1.08	1/2- 3/4	7 1/2	1/2	9 1/2
1534	534	1.30	1/2- 5/8	8 1/2	1/2	14
1535	535	1.30	1/2- 5/8	8 1/2	1/2	14
1536	536	1.60	3/4- 3/4	10	1/2	1 5
1537	537	1.60	5/8- 3/4	10	1/2	1 5
1538	538	2.00	5/8- 3/4	11 1/2	5/8	1 13 1/2
1539	539	2.00	3/4- 7/8	11 1/2	5/8	1 13 1/2
1540	540	2.60	3/4- 1	12 1/2	1 1/8	2 7 1/2
1541	541	2.60	3/4- 1	12 1/2	1 1/8	2 7 1/2

ENGINEERS' WRENCHES

BILLINGS & SPENCER



15 Degree Angle, Double Head

Drop forged steel, dull black finish, polished heads, hardened.
The heads of the wrenches are plainly marked showing the purpose for which they are intended.

Nos.	Trade Nos.	Each	U.S. standard bolt size, in.	Hex head cap screw size, in.	S.A.E. standard screw and nut, in.	Millco opening, in.
1100A	...	\$0.32	1/8	3/8	.....	1/4 - 5/8
1100	721	.34	1/8	3/8 - 1/2	.....	5/8 - 3/4
1101	21	.34	1/8 - 1/4	3/8	.....	5/8 - 1 1/2
1102	722	.42	1/8	3/8 - 1/4	1/4	5/8 - 1/2
1103	22	.42	1/8 - 1/4	1/2 - 1/4	1/4	5/8 - 1/2
1104	723	.42	.....	1/2 - 1/4	1/4	5/8 - 1/2
1105	723A	.42	1/4	1/2 - 1/4	1/4	5/8 - 1/2
1107	23	.42	1/2 - 1/4	1/2	1/4	1 1/2 - 1/2
1106	724	.50	.....	1/2 - 3/8	3/8	5/8 - 1/2
1108	24	.50	1/2 - 1/4	.....	.....	1 1/2 - 1 1/2
1109	725	.50	1/4	1/4 - 1/2	1/4 - 1/2	1/2 - 1/2
1110	725A	.50	.....	1/4 - 3/8	1/4 - 3/8	1/2 - 1/2
1111	725B	.50	1/4	1/2 - 3/8	1/2 - 3/8	1/2 - 1/2
1112	25	.50	1/4 - 1/2	1/2	1/2	1/2 - 1 1/2
1113	726	.62	1/4	1/2 - 1/2	1/2 - 1/2	1/2 - 5/8
1114	26	.62	1/4 - 3/8	1/2	1/2	1/2 - 1 1/2
1116	727	.62	.....	3/8 - 1/2	3/8 - 1/2	1/2 - 5/8
1118	27	.62	1/2 - 3/8	.....	.....	1 1/2 - 1 1/2
1117	728	.74	.....	3/8 - 1/2	3/8 - 1/2	1/2 - 3/4
1119	28	.74	1/2 - 1/2	.....	.....	1 1/2 - 1 1/2
1120	729	.74	.....	1/2 - 1/2	1/2 - 1/2	5/8 - 3/4
1123	29	.74	3/8 - 1/2	.....	.....	1 1/2 - 1 1/2
1121	730	.90	.....	1/2 - 1/2	1/2	5/8 - 1 1/2
1122	730A	.90	1/2	1/2 - 5/8	1/2 - 1/2	5/8 - 7/8
1124	30	.90	3/8 - 1/2	5/8	1/2	1 1/2 - 7/8
1125	731	.90	.....	1/2 - 1/2	1/2	3/4 - 1 1/2
1126	731A	.90	1/2	1/2 - 5/8	1/2 - 1/2	3/4 - 7/8
1128	31	.90	1/2 - 1/2	5/8	1/2	1 1/2 - 7/8
1130	731B	.90	1/2	1/2 - 5/8	1/2	1 1/2 - 7/8
1129	32	1.10	1/2 - 1/2	.....	.....	1 1/2 - 1 1/2
1131	732	1.10	.....	1/2 - 3/4	1 1/2	1 1/2 - 1
1132	33	1.10	1/2 - 1/2	5/8	1/2	7/8 - 1 1/2
1133	733	1.10	1/2	5/8 - 3/4	1/2 - 1 1/2	7/8 - 1
1134	34	1.36	1/2 - 5/8	5/8	1/2 - 3/4	7/8 - 1 1/2
1135	734	1.36	1/2	5/8 - 7/8	1/2	7/8 - 1 1/2
1136	35	1.36	1/2 - 5/8	.....	3/4	1 1/2 - 1 1/2
1138	735	1.36	.....	3/4 - 7/8	1 1/2	1 - 1 1/2
1137	36	1.92	1/2 - 3/4	1	7/8	1 1/2 - 1 1/2
1139	736	1.92	3/4	3/4 - 1	1 1/2 - 7/8	1 - 1 1/2
1140	37	1.92	5/8 - 3/4	1	3/4 - 7/8	1 1/2 - 1 1/2
1141	38	2.80	5/8 - 7/8	.....	3/4 - 1	1 1/2 - 1 1/2
1145	739	2.80	3/4	1 - 1 1/2	7/8	1 1/2 - 1 1/2
1146	39	2.80	3/4 - 7/8	1	7/8 - 1	1 1/2 - 1 1/2
1148	40	3.80	3/4 - 1	1	7/8 - 1 1/2	1 1/2 - 1 1/2
1150	41	3.80	7/8 - 1	.....	1 - 1 1/2	1 1/2 - 1 1/2
1151	42	5.30	7/8 - 1 1/2	.....	1 - 1 1/2	1 1/2 - 1 1/2
1153	43	5.30	1 - 1 1/2	.....	1 1/2 - 1 1/2	1 1/2 - 1 1/2
1154	44	7.20	1 - 1 1/2	.....	1 1/2 - 1 1/2	1 1/2 - 1 1/2
1155	45	7.20	1 1/2 - 1 1/2	.....	1 1/2 - 1 1/2	1 1/2 - 1 1/2
1156	46	10.50	1 1/2 - 1 1/2	.....	1 1/2 - 1 1/2	1 1/2 - 1 1/2
1157	47	10.50	1 1/2 - 1 1/2	.....	1 1/2 - 1 1/2	1 1/2 - 1 1/2
1158	48	14.00	1 1/2 - 1 1/2	.....	1 1/2	1 1/2 - 1 1/2
1159	49	14.00	1 1/2 - 1 1/2	.....	1 1/2	1 1/2 - 1 1/2

TOOL POST WRENCHES

BILLINGS & SPENCER



Double Head, for Set Screws

Drop forged steel, dull black finish, polished heads, hardened.
The heads of the wrenches are plainly marked showing the purpose for which they are intended.

Nos.	Trade Nos.	Each	Open end, in.	Closed end, in.	Length, in.	Thickness of heads, in.	Weight each, oz.
1875	554	\$1.12	1/2	1/2	5 1/2	1/2	4 1/4
1876	555	1.24	1/2	1/2	6	1/2	7 1/4
1877	555B	1.24	1/2	1/2	6	1/2	7 1/4
1878	555C	1.24	1/2	1/2	6	1/2	7 1/4
1879	556	1.44	5/8	5/8	6 3/4	5/8	10 3/4
1880	556B	1.44	5/8	5/8	6 3/4	5/8	10 3/4
1881	556C	1.44	5/8	5/8	6 3/4	5/8	10 3/4
1882	557	1.64	3/4	3/4	7 1/2	1 1/2	14 1/2

STRUCTURAL WRENCHES

BILLINGS & SPENCER



New Style

Straight Opening and Offset Head, Short Tang

Drop forged steel. Designed for structural iron workers, machine erectors, and for use on construction work where an offset is necessary for clearance and hand protection.

The tang is used for bringing holes in alignment and used as a handle.

Nos.	Trade Nos.	Unhardened, each	Hardened, each	U.S. bolt size, in.	Openings, in.	Lgth., in.	Thickness of head, in.	Handle offset, in.
1700	901	\$0.75	\$0.80	1/4	1 1/2	8	3/8	1 1/2
1701	902	.75	.80	1/4	1 1/2	8	3/8	1 1/2
1702	903	1.00	1.05	3/8	1 1/2	12	1/2	1 1/2
1703	904	1.00	1.05	1/2	1 1/2	12	1/2	1 1/2
1704	905	1.30	1.40	1/2	1 1/2	14 1/2	1 1/2	1 1/2
1705	906	1.30	1.40	1/2	1 1/2	14 1/2	1 1/2	1 1/2
1706	907	1.70	1.85	5/8	1 1/2	17	5/8	1 1/2
1707	908	2.30	2.35	3/4	1 1/2	19	1 1/2	1 1/2
1708	909	2.80	3.00	7/8	1 1/2	21	3/4	1 1/2
1709	910	3.55	4.10	1	1 1/2	22	1 1/2	1 1/2
1710	910A	3.55	4.10	1 1/8	1 1/2	22	1 1/2	1 1/2
1710A	911	5.75	6.15	1 1/8	1 1/2	22	1 1/2	1 1/2
1711	912	5.75	6.15	1 1/8	2 1/2	22	1 1/2	1 1/2

T HANDLE SOCKET WRENCHES

BILLINGS & SPENCER



With Pin Handle

Drop forged from steel, hot broached with edges ground and hardened all over.

Black lacquered finish.

With Hexagon Openings

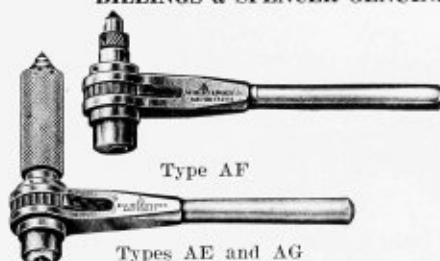
Wrench Nos.	Trade Nos.	With handle, each	For U. S. std. nut size bolt, in.	For cap. screw, diam. in.	S. A. E. standard screw and nut, in.	Nominal opening, in.
721X	.....	\$0.80	..	..	..	.260
720A	.....	.80	..	..	..	1/4
721A	961A	.80	1/8	..	..	7/16
721B	.....	.80	..	..	..	3/8
722A	962D	.88	..	1/8	..	3/8
722B	963A	.98	1/8	..	..	3/8
722C	963D	.98	..	1/4	..	1/2
723A	964A	1.04	1/4	1/8	1/8	1/2
724A	965D	1.16	..	3/8	3/8	1/2
724B	965A	1.16	1/8	..	..	1/2
725A	966D	1.26	..	1/2	1/2	5/8
725B	967A	1.42	3/8	..	..	1 1/8
725C	967D	1.42	..	1/2	1/2	3/4
726A	968A	1.54	1/2	..	..	3/4
726B	968D	1.54	..	1/2	1/2	1 1/8
726C	969A	1.74	1/2	5/8	5/8	1 1/8
727X	.....	1.96	..	..	..	1 1/8
727A	970A	1.96	1/2	..	..	1 1/8
727B	970D	1.96	..	3/4	3/4	1 1/8
728A	971A	2.20	3/4	..	..	1 1/8
728B	971D	2.20	..	3/4	3/4	1 1/8
729A	973A	3.00	3/4	1	1	1 1/8
730A	974D	3.40	..	1 1/8	..	1 1/8
730B	975A	3.70	3/4	..	..	1 1/8
730C	975D	3.70	..	1 1/4	1	1 1/8
731A	976A	4.24	1	..	1 1/8	1 1/8

With Square Openings

Wrench Nos.	Trade Nos.	With handle, each	For U. S. std. nut size bolt, in.	For set screw, size in.	Nominal opening, in.
720J	960H	\$0.70	..	1/8	1/8
721J	961H	.80	..	7/16	7/16
721K	961J	.80	..	1/4	1/4
722J	962H	.88	..	7/16	7/16
723J	963H	.98	..	3/8	3/8
724J	965H	1.16	..	7/16	7/16
725J	966H	1.26	1/4	1/2	1/2
725K	967H	1.42	..	7/16	7/16
726J	967X	1.42	7/16	..	3/8
726K	968H	1.54	..	5/8	5/8
726L	968P	1.54	3/8	..	1 1/8
727J	969H	1.74	..	3/4	3/4
727K	970X	1.96	7/16	..	3/8
728J	971H	2.20	1/2	7/8	7/8
729J	971X	2.60	7/8	..	3/4
729K	973H	3.00	..	1	1
729L	974X	3.40	5/8	..	1 1/8
730J	974H	3.40	..	1 1/8	1 1/8
730K	976H	4.24	3/4	1 1/4	1 1/4
731J	977N	4.80	..	..	1 1/8
731K	977X	4.80	7/8	..	1 1/8
732J	977P	4.80	..	..	1 1/2
732K	978P	5.70	1	..	1 1/8

RATCHET DRILLS

BILLINGS & SPENCER GENUINE PACKER



Single Action
For Square Shank Drills

When pressure is exerted on the handle the pawl is supported by the heavy drop forged frame of the ratchet preventing slipping.

Nos.	Each	Length of handle, in.	Morse Taper Nos.	Length of head, in.	Feed, in.	Weight each, lbs.
AE1	\$13.70	10 1/2	1	7 1/8	2 1/4	4 1/2
AE2	17.65	13	1	8	2 1/2	6 1/2
AE3	20.90	16	1	9 1/2	3 1/4	9 1/2
AE4	24.85	18	2	9 3/4	3 1/2	11
AE5	30.00	20 1/2	2	10 3/4	4	16

Single Acting, for Taper Shank Drills

Nos.	Each	Length of handle, in.	Morse Taper Nos.	Length of head, in.	Feed, in.	Weight each, lbs.
AG1	\$17.00	10 1/2	1	6 1/8	1 3/4	4 1/2
AG2	20.90	13	2	8	2	6 1/2
AG3	26.10	16	3	9 1/2	2 3/4	9 1/2
AG4	32.65	18	4	10 3/4	2 3/4	10 1/2

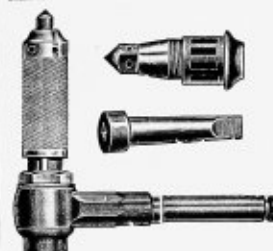
Single Acting, for Square Shank Drills

Nos.	Each	Length of handle, in.	Morse Taper Nos.	Length of head, in.	Feed, in.	Weight each, lbs.
AF1	\$11.75	10 1/2	1	4 1/4	1 1/4	3 1/2
AF2	13.70	11	2	4 1/8	1 1/8	5

KEYSTONE

Combination Reversible

Pawl and feed screw special alloy steel. Reverse motion (right or left) obtained by withdrawing and taking half turn on knob. Can be converted for Morse Taper or Square Shank twist drills or into a short feed boiler ratchet drill.



Nos.	Each	Length of handle, in.	Morse Taper Nos.	Bit stock and square taper Nos.	Weight each, lbs.
51A	\$7.00	9	1	Bit stock	2 1/4
51	7.75	10	2	1 sq.	4 1/8
52	9.00	14	3	1 sq.	9
54	11.25	18	4	2 sq.	16 1/2
56	11.75	24	4	2 sq.	17 1/2

RENSHAW

No. 1 has two collets, one for bit stock drills and other for No. 1 Morse taper shank drills. No. 3 has one collet for No. 1 taper shank drills, shank 3/4 x 5/8 x 1 1/2 in. and three collets for Nos. 1, 2 and 3 Morse taper.



Nos.	Each	Length of handle over all, in.	Depth from top feed screw to bottom of collet, in.	Full depth of feed, in.
1	\$11.00	9 1/2	2 1/2	1 1/2
2	15.00	18	5	2 3/4

DRILLING POSTS

ARMSTRONG

For Use with Ratchet Drills

Foot and arm are drop forged. The finished steel post is screwed into foot and can be easily removed for packing in tool kit.



Nos.	Each	Height of post, in.	Diam. of post, in.	Arm radius, in.	Weight each, lbs.
8	\$ 6.00	16	1	8	9
10	8.00	20	1 1/4	10	16
12	10.00	25	1 1/2	12	30

BREAST DRILLS MILLERS FALLS



**Continuous or Plain Ratchet
Two Speeds, Capacity 0 to 1/2 Inch
Round Shank Drills**

Five actions; crank handle is adjustable; improved shifter sleeve. Changes of speed made by sliding the knob on the crank. Ratchet action controlled by a knurled sleeve.

Cut gears; steel pinion; ball thrust bearing. Three jaw chuck.

Black enameled malleable iron frame; large gear enameled red, other parts nickel plated; hardwood handles.

Each

No. 97—Length 17 1/2 inches; wt. each 8 1/4 lbs.\$11.60



**Two Speeds, Capacity 0 to 1/2 Inch
Round Shank Drills**

Enclosed pinions and quick easy speed change accomplished by shifting knurled sleeve between pinions. Idle roll to equalize large gear bearing. Three jaw chuck.

Black enameled malleable iron frame, large gear red enameled, other parts polished. Hardwood handles.

Each

No. 2100—Length 17 1/2 inches; wt. each 5 3/4 lbs.\$5.80



**Two Speed, Level Attached
Capacity 0 to 1/2 Inch**

Round shank drills. Adjustable ball bearing spindle, idler roll to equalize large gear bearing. Three jaw chuck.

Black enameled malleable iron frame with level attached, red and black breast plate, large gear red enameled, all exposed parts nickel plated.

Each

No. 118—Length 17 1/2 in.; wt. each 6 1/2 lbs.\$7.00

All above, one in a box.

BREAST DRILLS MILLERS FALLS



**Two Speed, Level Attached
Capacity 1/4 to 1/2 Inch Drill
and No. 1 Morse Taper Shank**

Adjustable ball bearing spindle, idler roll to equalize large gear bearing. Master chuck.

Black enameled malleable iron frame with level attached, red and black breast plate. Large gear red enameled. All exposed parts nickel plated. Hardwood handles.

Each

No. 12—Length 17 1/2 in.; wt. each 6 1/2 lbs.\$6.00



**Two Speed, Capacity 0 to 1/2 Inch
Round Shank Drills**

Steel pinions, ball bearing spindle. Three jaw chuck.

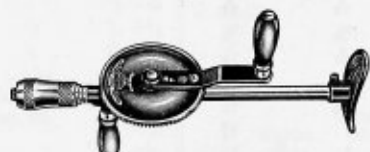
Black enameled malleable iron frame, large gear red enameled with polished edges.

Crank and chuck polished and nickel plated.

Hardwood handles.

Each

No. 6A—Length 16 inches; wt. each 4 1/2 lbs.\$5.80



**Two Speed, Capacity Bit
Stock Shanks Only**

Steel pinions, ball thrust bearing on spindle, frame and breast plate connected by steel tube. Barber two jaw chuck.

Black enameled frame, large gear red enameled. All exposed parts polished finish. Hardwood handles.

Each

No. 19A—Length 16 1/2 inches; wt. each 4 3/4 lbs.\$4.50

All above, one in a box.

BREAST DRILLS MILLERS FALLS



Two Speed, Capacity 0 to 1/2 Inch

Steel pinion, ball thrust bearing on spindle, frame and breast plate connected by steel tube. Three jaw chuck.

Blade enameled frame, large gear red enameled. All exposed parts polished finish. Hardwood handles.

Each

No. 120A—Length 16 1/2 inches; wt. each 4 3/4 lbs.\$3.60

YANKEE



**Continuous or Plain Ratchet
Two Speeds, Capacity 0 to 1/2
Inch Round Shank Drills**

Adjustable ball bearings, steel spindle, cut steel gears, large gear 5 1/4 inches, small gear 1 7/8 inch diameter.

Three jaw chuck.

Dead black finish malleable iron frame, polished face on breast plate. Other exposed parts nickel plated. Hardwood handles.

Each

No. 1555—Length 17 inches; wt. each 6 3/4 lbs.\$12.30



**Continuous or Plain Ratchet
Single Speed, Capacity 0 to 1/2
Inch, Round Shank Drills**

Same construction as No. 1555 above except that it has a single instead of double gear.

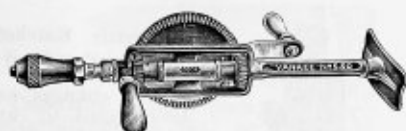
Each

No. 1550—Length 17 inches; wt. each 5 3/4 lbs.\$10.40

All above, one in a box.

BREAST DRILLS

YANKEE



Continuous or Plain Ratchet, Single Speed Capacity 0 to 1/2 Inch Round Shank Drills

Adjustable ball bearing, steel spindle, cut teeth gears, 5 1/4 inch diameter gear.

Two jaw chuck.

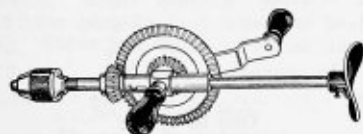
Dead black finish. Malleable iron frame, polished face on breast plate. Other exposed parts nickel plated.

Hardwood handles.

Each

No. 550—Length 18 in.; wt. each 5 3/4 lbs.\$10.40

STANLEY DEFIANCE



Two Speeds, Capacity 0 to 1/2 Inch Round Shank Drills

All steel frame, quickly changed from fast or slow speed. Three jaw chuck.

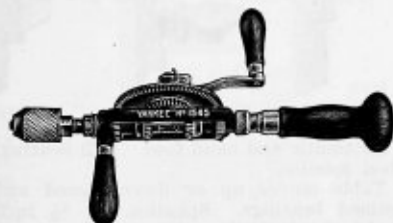
Bright steel finish, japanned breast plate, orange gear and black handles.

Each

No. 1247 1/2—Length 16 1/2 in.; wt. each 6 1/2 lbs.\$2.80

HAND DRILLS

YANKEE



Continuous or Plain Ratchet, Two Speeds, Capacity 0 to 3/8 Inch Round Shank Drills

Adjustable ball bearings, steel spindle, cut teeth gears, large gear 4 1/2 inch diameter, small gear 1 1/2 inch diameter. Three jaw chuck.

Dead black finish malleable iron frame, all exposed parts nickel plated. Hardwood handle made as a magazine to hold drills.

Each

No. 1545—Length, 16 inches; wt. each 4 3/4 lbs.\$10.70

All above, one in a box.

HAND DRILLS

YANKEE



Continuous or Plain Ratchet, Two Speeds, Capacity 0 to 3/8 Inch Round Shank Drills

Adjustable ball bearings, steel spindle, cut teeth gears, two jaw chuck.

Dead black enameled iron frame, all exposed parts nickel plated. Hardwood magazine handle to hold drills.

Each

No. 545—Length 16 1/2 in.; wt. each 4 1/4 lbs.\$10.70



Continuous or Plain Ratchet, Single Speed, Capacity 0 to 1/2 Inch Round Shank Drills

Hardened bearing, steel spindle cut teeth gears. Three jaw chuck.

Dead black enameled iron frame, other parts nickel plated. Hardwood magazine handle.

Each

No. 1530—Length 10 1/2 inches; wt. each 1 1/4 lbs.\$5.60



Single Speed, Capacity 0 to 1/2 Inch Round Shank Drills

Hardened bearing steel spindle cut teeth gears. Three jaw chuck.

Nickel plated frame, hardwood handle.

Each

No. 1431—Length 13 1/4 inches; wt. each 2 1/2 lbs.\$3.20

DEFIANCE



Single Speed, Capacity 0 to 1/4 Inch Round Shank Drills

Easy running gear and pinion. Three jaw chuck.

Red enameled gear and handle, other parts polished steel.

Each

No. 1218—Length 10 in.; wt. each 1 lb.\$1.00

All above, one in a box.

HAND DRILLS

DEFIANCE



Single Speed, Capacity 0 to 1/4 Inch Round Shank Drills

Easy running gear and pinion. Three jaw chuck.

Red enameled gear and handle. Magazine in handle for drills. All other parts nickel plated.

Each

No. 1219—Length 11 inches; wt. each 1 lb.\$1.20

MILLERS FALLS



Single Speed, Capacity 0 to 1/4 Inch Round Shank Drills with Drill Points

Steel drive and equalizing pinion, wide gear. Three jawed chuck.

Black enameled iron frame, red enameled gear, other parts nickel plated. Hardwood magazine handle.

Each

No. 5—Length 12 3/4 inches; wt. each 1 3/4 lbs.\$4.00



Single Speed, Capacity 0 to 3/8 in.

Solid steel frame and pinions.

Three jaw chuck.

Gear red enamel, other parts polished. Hardwood handle.

Each

No. 7—Length 13 1/2 inches; wt. each 1 3/4 lbs.\$4.00



Single Speed, Capacity 0 to 1/4 Inch Round Shank Drills

Steel pinion and equalizing idler, wide gear. Three jaw chuck.

Black enameled malleable iron frame, red enameled gear, all other parts nickel plated.

Each

No. 05—Length 12 3/4 inches; wt. each 1 5/8 lbs.\$3.60

All above, one in a box.

HAND DRILLS MILLERS FALLS



Single Speed, Capacity 0 to $\frac{1}{4}$ Inch Round Shank Drills

Steel pinion, cut gears.
Black enameled iron frame, red enameled gear, other parts nickel plated. Hardwood handle.

Each
No. 655—Length 12 $\frac{1}{4}$ inches; wt. each 1 $\frac{1}{4}$ lbs.\$1.70



Continuous or Plain Ratchet Two Speeds, Capacity 0 to $\frac{3}{8}$ Inch Round Shank Drills

Fully enclosed steel pinion, ball thrust bearing spindle, machine cut gears. Three jaw chuck.

Black enameled iron frame, red enameled gear, other parts nickel plated.

Each
No. 1980—Length 15 $\frac{1}{4}$ inches; wt. each 3 $\frac{1}{4}$ lbs.\$6.65



Two Speeds, Capacity 0 to $\frac{3}{8}$ Inch Round Shank Drills

Ball bearing spindle, steel pinion. Speed changed by turning shifter knob.

Black enameled malleable iron frame, red enameled gear, all other parts nickel plated.

Hardwood magazine handle.

Each
No. 5 $\frac{1}{2}$ —Length 14 $\frac{1}{2}$ inches; wt. each 2 $\frac{1}{2}$ lbs.\$5.40



Two Speeds, Capacity 0 to $\frac{3}{8}$ Inch Round Shank Drills

Fully enclosed steel pinion, ball thrust bearing spindle, machine cut gears. Three jaw chuck.

Black enameled iron frame, red enameled gear, other parts nickel plated. Hardwood handle.

Each
No. 980—Length 15 $\frac{1}{4}$ inches; wt. each 3 $\frac{1}{4}$ lbs.\$5.40

All above, one in a box.

HAND DRILLS MILLERS FALLS



Two Speeds, Capacity 0 to $\frac{3}{8}$ Inch Round Shank Drills With Drill Points

Ball thrust bearing, steel pinion, adjustable rolling equalizer. Three jaw chuck.

Black enameled iron frame, red gear, other parts nickel plated. Hardwood screw cap handle.

Each
No. 2—Length 14 $\frac{1}{2}$ in.; wt. each 2 $\frac{1}{2}$ lbs.\$4.80

One in a box.

CHAIN DRILLS MILLERS FALLS



Capacity $\frac{1}{8}$ to $\frac{1}{2}$ Inch, No. 1 Morse Taper and Bit Shank Drills

Has automatic friction and hand feed which is regulated by resistance the drill encounters. Reverse movement withdraws drill. Four feet of chain. Black japanned finish, other parts nickel plated.

Each
No. 718—Length 11 $\frac{1}{2}$ in.; wt. each 4 $\frac{1}{2}$ lbs.\$5.20

One in a box.

YANKEE



Capacity 0 to $\frac{1}{2}$ Inch Round Shank Drills

Has automatic friction and ratchet feed. Taking up of chain is done by friction feed. When drill has obtained desired depth, the automatic feed is thrown off by turning lever to upright position. Three jaw chuck.

Black finish, other parts nickel plated.

Each
No. 1500—Length 9 $\frac{3}{4}$ inches; wt. each 3 $\frac{1}{4}$ lbs.\$6.40

One in a box.

BENCH DRILLS YANKEE



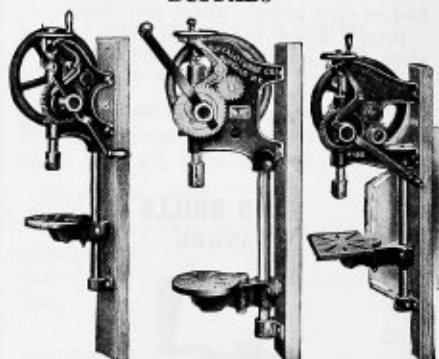
Automatic Ratchet and Friction Feed

Feed changes as drill begins to cut into work. Top bracket disengages the ratchet feed at extreme up and down movement. Slide at bottom of column carries an adjustable bracket with table. Table can be adjusted independent of bracket.

Nos.	1003	1005
Speed	Single	Double
Capacity chuck, in....	$\frac{1}{4}$	$\frac{3}{8}$
Traverse amt. feed	1 $\frac{1}{2}$	2
Diam. table	4 $\frac{1}{4}$	6 $\frac{3}{4}$
Adj. of table	1 $\frac{1}{4}$	1 $\frac{3}{4}$
Adj. of bracket	2 $\frac{3}{4}$	5
Height, in.	18 $\frac{3}{4}$	28
Wt., lbs., boxed	20	57
Each	\$16.50	27.50

One in a box.

POST DRILLS BUFFALO



No. 612 No. 614R No. 616

Automatic and hand feed. Ball bearing. Steel spindle.

Table moves up or down, bored and reamed bearings. Spindles for $\frac{1}{2}$ inch round shank drills.

Automatic feed adjustable to three speeds.

Nos.	612	614R	616
Height, in.	35	38	38
Drills to center of circle, in.	12	14	16
Drills holes up to, in.	1	1 $\frac{1}{4}$	1 $\frac{1}{4}$
Spindle diam., in.	1 $\frac{1}{8}$	1	1 $\frac{1}{8}$
Run of table, in.	10	10 $\frac{1}{4}$	10
Run of feed, in.	2 $\frac{3}{4}$	3	3 $\frac{1}{4}$
Shipping wt., lbs.	95	117	137
Each	\$13.00	15.00	20.00

Note—No. 616 can be furnished with 6 in. pulley at extra cost.

One in a box.

ELECTRIC DRILLS **STANLEY**



Capacities $\frac{1}{4}$ to $\frac{1}{2}$ Inch
Universal Motors, D.C. or A.C.
Current, 60 Cycles or Less
No. 114— $\frac{1}{4}$ Inch, Victor

For plumbers, electricians, installers of oil burners, air conditioners, carpenters, garage men, etc.

Aluminum housing, thrusts ball bearing on spindle, armature mounted on bronze sleeve bearings, heavy cable. Three jaw chuck. Ventilated motor.

No. 361— $\frac{3}{8}$ Inch Special

Special for garages, factories and wood-working plants. Aluminum housing, ball bearing, heavy cable, three jaw chuck. Ventilated motor.

No. 140— $\frac{1}{4}$ Inch Light Duty

For fast drilling. Used in garages, factories, wood working plants, etc. Aluminum housing, ball bearing. Heavy cable. Three jaw chuck. Ventilated motor.

No. 142— $\frac{1}{4}$ Inch Heavy Duty or Special

For steel worker, contractor, millwright, garages, etc. Aluminum housing, ball bearing, heavy cable. Three jaw chuck. Ventilated motor.

No. 562— $\frac{3}{8}$ Inch Heavy Duty

For factories, garages, etc., where a powerful drill is required. Aluminum housing, ball bearing, heavy cable, three jaw chuck. Ventilated motor.

Voltages

No. 114—110, 125, 150, 220, 230 or 250.

Nos. 361 to 562—110, 125, 150, 220, 230 or 250. 32 on Nos. 142 and 562 only.

Specifications

Nos.	Cap. steel in.	Cap. wood, in.	Amperes full load at 110 volts	Full load r.p.m.
114	$\frac{1}{4}$	..	1.7	1400
361	$\frac{3}{8}$	$\frac{3}{8}$	1.5	2200
140	$\frac{1}{4}$	$\frac{3}{8}$	2.0	1300
142	$\frac{1}{4}$	1	3.0	750
142*	$\frac{1}{4}$	$\frac{3}{8}$	2.5	1100
562	$\frac{3}{8}$	$\frac{1}{2}$	3.0	600

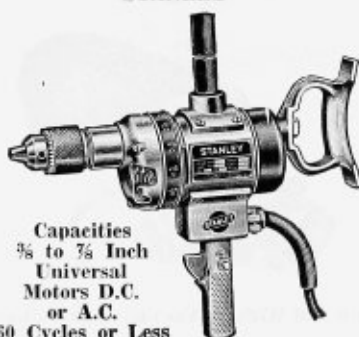
* No. 142 special.

Nos.	Each	Length, in.	Net wt. lbs.	Ship. wt. lbs.
114	\$19.50	12	5 $\frac{1}{4}$	7
361	38.00	8 $\frac{1}{4}$	3 $\frac{1}{2}$	5 $\frac{1}{2}$
140	30.00	13	6 $\frac{1}{2}$	10
142 Hvy. Duty	43.00	13	8 $\frac{1}{2}$	11 $\frac{1}{2}$
142 Spec.	43.00	13	8 $\frac{1}{2}$	11 $\frac{1}{2}$
562	48.00	13	8 $\frac{1}{2}$	12 $\frac{1}{2}$

Note—Specify voltage on order.

One in a box.

ELECTRIC DRILLS **STANLEY**



Capacities
 $\frac{3}{8}$ to $\frac{1}{2}$ Inch
Universal
Motors D.C.
or A.C.
60 Cycles or Less

No. 382— $\frac{3}{8}$ Inch Heavy Duty

For millwrights, structural iron workers, etc. Aluminum housing, ball bearing, heavy cable, three jaw chuck. Ventilated motor.

No. 121— $\frac{1}{2}$ Inch Standard Duty

For millwrights, contractors, auto mechanics. Aluminum housing, ball bearing, heavy cable. Three jaw chuck. Ventilated motor.

No. 122— $\frac{1}{2}$ Inch Heavy Duty

All around drill for auto mechanic and factory maintenance. Aluminum housing, ball bearing, heavy cable. Three jaw chuck, ventilated motor.

No. 582— $\frac{3}{8}$ Inch Heavy Duty

For heavy construction and structural work. Aluminum housing, ball bearing. Heavy cable. Three jaw chuck. Ventilated motor.

No. 341— $\frac{3}{4}$ Inch Standard Duty

No. 342— $\frac{3}{4}$ Inch Heavy Duty

For heavy construction and factory production work. Aluminum housing, ball bearing, heavy cable. Three jaw chuck. Ventilated motor.

No. 781— $\frac{3}{8}$ Inch—No. 2 Morse Taper

For heavy drilling and maintenance work. Aluminum housing, ball bearing, heavy cable, No. 2 Morse taper socket. Ventilated motor.

No. 781— $\frac{3}{8}$ Inch—No. 3 Morse Taper

Voltages

Nos. 382, 121—32, 110, 125, 150, 220, 230 or 250.

Nos. 122 to 781—110, 125, 150, 220, 230 or 250.

Specifications

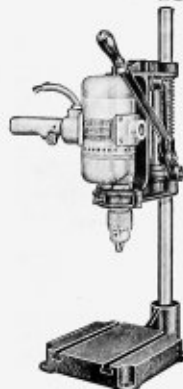
Nos.	Cap. steel in.	Cap. wood, in.	Amperes full load at 110 volts	Full load r.p.m.
382	$\frac{3}{8}$	$\frac{1}{2}$	4.5	600
121	$\frac{1}{2}$	$\frac{1}{2}$	4.5	380
122	$\frac{1}{2}$	$\frac{1}{2}$	7.0	385
582	$\frac{3}{8}$	$\frac{1}{2}$	7.2	330
341	$\frac{3}{4}$	$\frac{1}{2}$	7.2	265
342	$\frac{3}{4}$	$\frac{1}{2}$	8.0	190
781	$\frac{3}{8}$	2	8.0	190
781A	$\frac{3}{8}$	2	8.0	190

Nos.	Each	Length, in.	Net wt. lbs.	Ship. wt. lbs.
382	\$54.00	16	12	16 $\frac{1}{2}$
121	55.00	16	13	18
122	68.00	19 $\frac{1}{4}$	20 $\frac{1}{2}$	34
582	78.00	18 $\frac{1}{2}$	20 $\frac{1}{2}$	34
341	80.00	19	21	35
342	90.00	20	24	37
781	96.00	17 $\frac{1}{2}$	21	36
781A	100.00	18 $\frac{3}{4}$	22	37

Note—Specify voltage on order.

One in a box.

DRILL STANDS **STANLEY**



An electric drill with a drill stand makes an economical drill press. Drill is securely locked in the stand by tightening clamp screw. Drill bracket can be moved up or down or turned sideways. Post stands are mounted on a post or wall. Furnished complete with brackets and heavy board.

* Used with No. 547, adaptor not furnished.

† Used with No. 549, adaptor furnished.

‡ Used with No. 640, adaptor furnished.

Specifications

Nos.	Kind	Used with drills, Nos.	Used with dist. screw chuck drivers to base, Nos.	Max. in.
531	Bench	*361, 140	*01, 2,	11
			32	
531A	Bench	114	1, 31	11
532	Bench	142, 562		11
533	Bench	†382, †121		13
534	Post	†382, †121		13
535	Bench	‡122, ‡582, ‡341, 342		16
536	Bench	781		18 $\frac{1}{2}$
539	Post	‡122, ‡582, ‡341, 342		16
540	Post	781		18 $\frac{1}{2}$
540A	Post	781A		18 $\frac{1}{2}$

Nos.	Each	Length of column, in.	Max. feed, in.	Shipping wt. each, lbs.
531	\$12.00	22	2 $\frac{1}{2}$	36
531A	14.00	22	2 $\frac{1}{2}$	36
532	14.00	22	2 $\frac{1}{2}$	36
533	22.00	30	4	65
534	26.00	33 $\frac{1}{2}$	4	97
535	28.00	36	4	80
536	28.00	36	4	80
539	32.00	39	4	110
540	32.00	39	4	110
540A	32.00	39	4	110

One in a box.

HOLE SAWS

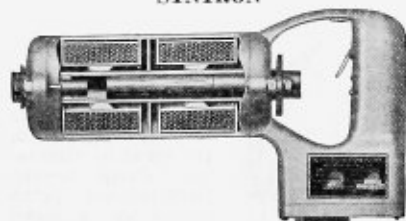
STANLEY



For use with $\frac{1}{2}$, $\frac{3}{8}$ and $\frac{3}{4}$ inch electric saws.
Depth $\frac{3}{8}$ in.

Saw size, in.	Pipe tap, in.	Conduit size, in.	Complete No. 590A	Saw only No. 591A	Adaptor & saw No. 592A
$\frac{3}{4}$	...	$\frac{3}{8}$	\$2.65	\$0.75	\$1.55
$\frac{1}{2}$	...	$\frac{1}{2}$	2.65	.75	1.55
1	...	...	2.65	.75	1.55
1 $\frac{1}{2}$	1	$\frac{3}{4}$	2.65	.75	1.55
1 $\frac{3}{4}$	...	...	2.65	.75	1.55
1 $\frac{1}{2}$	1 $\frac{1}{4}$	...	2.65	.75	1.55
1 $\frac{3}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	3.00	1.10	1.90
2	...	1 $\frac{1}{2}$	3.00	1.10	1.90
2 $\frac{1}{4}$	2	...	3.40	1.55	2.30
2 $\frac{1}{2}$	...	2	3.40	1.55	2.30
2 $\frac{3}{4}$	...	...	3.40	1.55	2.30
3	...	2 $\frac{1}{2}$	3.40	1.55	2.30
3 $\frac{1}{2}$	...	...	3.40	1.55	2.30

ELECTRIC HAMMERS SYNTRON



Operates on a 110 volt socket, delivering 3,600 blows per minute. Made of two magnets around a barrel containing a free moving piston. The piston strikes directly on the shank of the tool. No motor, gears, etc. Furnished with 15 feet cable.

Specifications

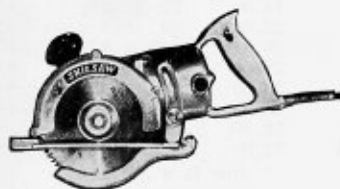
Nos.	Ampere input	Current consumption watts	Con-troller dimensions, in.	Size tool shank, in.
8	2	150	4x6	.494x2
MK	2.6	175	4x8	.494x2
16	6½	355	10x6x6½	.687x2¾
B5	11	620	10x6x6½	.687x2¾
C	13	1000	10x10x10	.687x2¾
R	13	1250	10x10x10	.687x2¾

Nos.	Each	Cap. in.	Lgth. in.	Dia. in.	Stroke in.	Wt. each
8	\$80.00	½	9¾	3½	¾	24
MK	105.00	¾	12	3½	1	30
16	165.00	1½	15	3½	1	44
B5	225.00	1½	15	5	1	75
C	275.00	1½	16	3½	1	105
R	275.00	2	16	4	1	115

Note—220 volt \$10.00 extra.

One in a box.

ELECTRIC SAWS SKILSAW, PORTABLE



Universal AC or DC motor, 60 cycles, 110 to 220 volts, 15 feet cord. Safety guards. Ball bearing.

Specifications

Nos.	Speed R.P.M.	Angle degree	Length, inches
W	2800	...	12
J	3600	...	14
77	3200	45	18
E	3400	45	20
S	2800	45	21
O	2600	45	21
R	2500	45	24

Nos.	Each	Saw in.	Cut in.	Wt. ea., lbs.
W	\$45.00	6	1½	8
J	72.00	6	1½	11
77	95.00	7	2½	15
E	135.00	8	2½	19
S	150.00	9	3	22
O	165.00	10	3¾	26
R	195.00	12	4½	30

Note—No. 77 made with blower.

One in a box.

ELECTRIC SANDERS SKILSAW



With and Without Vacuum Dust Collector

Universal motor for A.C. or D.C. current, 60 cycles or less 110, 220 volts. Special voltages up to 250 as required.

Belt speed 1500 feet per minute. Right side of machine flush with sand belt for surfacing close to upright. Aluminum die cast frame, helical steel heat treated gears, ball bearing throughout. Diameter of pulleys 2½ inches, flexible asbestos removable pad. Belts are easily removed.

No. B made with vacuum dust collector with separate motor as illustrated. No. A without dust collector.

Nos.	Each	Size belt in.	Size over all, in.	Wt. each, lbs.
A	\$88.00	4½x26	7x14x9	18
B	125.00	4½x26	7x14x9	24

One in a box.

STANLEY DISC



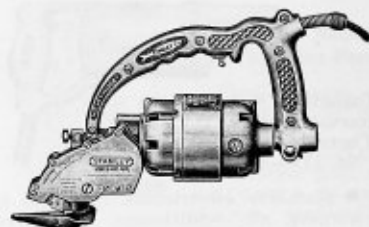
Universal motor for A.C. or D.C. current. 60 cycles or less. 110, 150, 220, 230 or 250 volts, 6.0 amperes at 110 volts. 2500 revolutions at full load. Full ball bearing.

Aluminum motor housing, seal type bearings on armature and spindle excludes dirt. Auxiliary handle makes it easy to work with, may be detached when working in small corners. Flexible disc assures smooth even work. Furnished with a 9 inch flexible pad, 12 abrasive discs, 6 coarse, 4 medium and 2 fine. Heavy cable.

Nos.	Each
No. 589—Disc 9 inch diam.; wt. each 16 lbs.	\$88.00

One in a box.

ELECTRIC METAL SHEARS STANLEY UNISHEAR



A motor driven shear for cutting metal. User cannot cut himself.

Universal motor for 110 volt A.C. or D.C. current, 60 cycles or less.

Aluminum housing, blades, can be re-sharpened, easy grip handle. Heavy cable. Speed as you feed up to 15 feet per minute.

Mighty Midget Capacity

18 U. S. gauge (0.050 inch) hot rolled steel or galvanized iron. No. 16 U.S. gauge (0.0625 inch) aluminum. Brass, etc. 48 oz. copper fibre and softer materials in proportion.

No. 16 Capacity

16 U.S. gauge ⅜ inch hot rolled steel or galvanized iron. Softer materials in proportion.

No. 144 Capacity

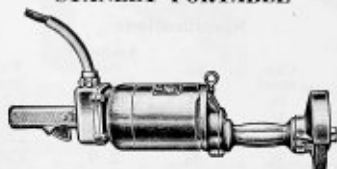
14 U.S. gauge (⅝ inch) hot rolled steel or galvanized iron, softer materials in proportion.

Nos.	Each	Min. rad., in.	Length, in.	Wt. ea., lbs.
Mighty Midget	\$59.00	1	13½	7½
16	90.00	1½	13½	9¾
144	170.00	2½	14½	20

Note—Other voltages \$3.00 extra.

One in a box.

ELECTRIC GRINDERS STANLEY PORTABLE



Universal motor for A.C. or D.C. current. 60 cycles or less, 110, 150, 220, 230 or 250 volts. Aluminum housing on motor, ball bearing nickel steel gears. Heavy cable.

For grinding large items too big to hold to bench grinder.

Specifications

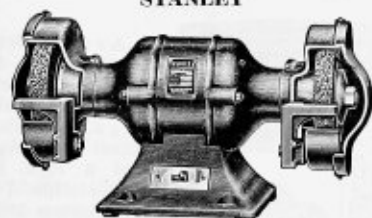
Nos.	Speed R.P.M.	Amp. full load at 110 volts	Length inches
565	3000	5.0	22¾
566	2600	7.0	25¼

Nos.	Each	Wheels in.	Wt. each, lbs.
565	\$80.00	5x¾x1½	16
566	100.00	6x1x¾	23

One in a box.

ELECTRIC GRINDERS

STANLEY



Bench

Complete with one coarse and one fine grinding wheel. Ball bearing motor, correctly mounted to avoid vibration. Easily adjustable for grinding at any point on wheel. Sturdy guard covers over wheels. Tool rests are mounted on wheel guards and are adjustable to follow wheel wear. Base has rubber feet. Three wire cable. Eye shields can be attached when wanted.

Currents

Specify when ordering current, voltage, cycle and phase as motors are not universal.

No. 586 and No. 557

A.C. single phase, 110, 220, 230, 250 volts. 50-60 cycles. D.C. 115 or 230 volts.

No. 610

A.C. single phase, 110, 220, 230, 250 volts, 50 to 60 cycles. A.C. three phase, 220 volts, 50 to 60 cycles. D.C. 115 and 230 volts.

Specifications

Nos.	Load R.P.M.	Amp. at 60 cycles	Motor H.P.
586	3450	4.0	1/4
557	3450	4.6	1/2
610	1725	7.5	1 1/2

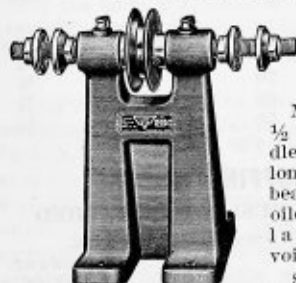
Nos.	Each	Size wheels, in.	Lgth., in.	Wt. ea., lbs.
586	\$ 25.00	6x3x1 1/2	13 1/2	40
557	42.00	7x1x5/8	19 3/4	57
610	88.00	10x1x3/4	18	125
*1610	113.00	10x1x3/4	18	243

*On pedestal with shelf and water pot.

Note—Price on No. 610 and 1610 is for 110 volt, other voltages \$4.00 extra.

GRINDING HEADS

MILLERS FALLS



Full
Bronze
Bearings

Made with 1/2 inch spindle, 1 1/4 inch long bronze bearings wick oiled from two large reservoirs.

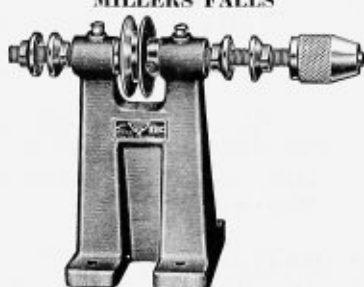
Spindle threaded both ends, with two sets 1 1/4 inch flanges to carry wheels up to 4x3 1/2 inch 2 1/2 inch V belt pulley. Height 6 inches, 4 1/4 x 4 1/4 inch base. Gray finish. Nickel plated trim.

No. 120—Wt. each 5 1/4 lbs. \$2.50

One in a box.

GRINDING HEADS

MILLERS FALLS



Full Bronze Bearing

Made with a 3/4 inch spindle, running in two bronze bearings 1 1/2 inches long, bearings are wick oiled from two large reservoirs. Arbors on either end of spindle with 1 1/4 inch flanges for wheels 4x3 1/2 inch. Three jaw chuck on one end holds 0 to 3/8 inch drills. V pulley, 2 1/4 inches diameter.

Height 6 inches, 4 1/4 x 4 1/4 inch base. Gray finish. Nickel plated trim.

No. 130—Wt. each 5 1/4 lbs. \$3.20

One in a box.

FAMILY GRINDSTONES



Improved Ball
Bearings

Turned and rubbed smooth. Berea grindstone mounted on a cast iron trough with a steel base with patented steel shaft on ball bearings.

Size, in.	Each	Wt. ea., lbs.
6	\$4.00	10
8	4.50	12
10	5.00	25
12	5.50	35

One-quarter dozen in a box.

TOOL GRINDERS



HANDY ANDY

Smooth running, sturdily built, equipped with Norton vitrified stone. Standard tool rest. Clamp screw and extra long crank arm.

Nos.	Each	Size wheel, in.	Wt. ea., lbs.
RD1	\$2.50	4x1	4
RD2	3.00	5x1	5
RD3	5.25	6x1	11
RD4	5.75	7x1	12

MOUNTED GRINDSTONES

NORKA



Very strong and easy running. Frame made of 1 1/4 and 1 1/2 in. high carbon steel.

Cold rolled steel shaft fully encased ball bearings. Berea stone 19 to 22 in. diameter, 1 1/4 to 2 1/4 inches thick. Provided with large comfortable seat. Clothes protector, drip cup and foot rest on pedals.

Norka—Shipping wt. 105 lbs. \$15.00
Extra stones 7.50

Partly crated, knocked down.

SAMSON



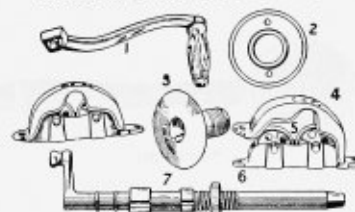
Roller Bearing

Blue enameled hardwood frame. Strongly braced, equipped with Berea grit grindstone and regular bearings. Stones about 1 1/4 to 2 1/4 inches thick.

Nos.	Complete each	Stones only	Wt. of stones, lbs.	Ship. wt. ea., lbs.
S150	\$16.00	\$7.50	100-110	150
S155	15.00	7.00	70-80	100
S160	13.00	6.50	40-50	75

Shipped knocked down.

GRINDSTONE FIXTURES



Common

Cast iron. Roller bearings.

Length of shaft, in.	13
Wt. per set, lbs.	5
Per set \$2.00	
Extra Cranks—Each \$4.00	
Extra Shafts—Each \$1.00	

GRINDING WHEELS

NORTON



Alundum—(Crystalline aluminum oxide) vitrified bond wheels for materials of high tensile strength, such as steel, including tools of all kinds, mild steel, annealed malleable iron, hard bronze, etc.

Crystolon—(Silicon carbide) for cast iron, annealed malleable iron, brass, soft bronze, aluminum, marble, granite, pearl, etc.

Note—Always state shape of wheel face desired. Also whether Alundum or Crystolon wheel is wanted.

EACH

THICKNESS OF WHEELS IN INCHES

Dia., in.	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
2	\$0.60	\$0.65	\$0.70	\$0.75	\$0.75	\$0.80	\$0.85	\$1.10	\$1.30	\$1.55	\$1.80	\$2.00	\$2.25
2 1/2	.75	.80	.85	.90	.95	1.00	1.05	1.30	1.60	1.85	2.10	2.35	2.65
3	.90	.95	1.05	1.10	1.20	1.25	1.30	1.60	1.90	2.20	2.50	2.80	3.10
3 1/2	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.30	2.65	2.95	3.25	3.55	3.90
4	1.55	1.65	1.75	1.90	2.05	2.20	2.35	2.70	3.10	3.45	3.80	4.15	4.55
4 1/2	1.75	1.90	2.05	2.20	2.40	2.60	2.80	3.20	3.65	4.05	4.45	4.90	5.30
5	2.10	2.30	2.50	2.70	2.90	3.10	3.30	3.80	4.25	4.75	5.20	5.70	6.15
6	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.60	5.25	5.90	6.55	7.20	7.85
7	2.90	3.25	3.60	3.95	4.30	4.60	4.90	5.70	6.55	7.40	8.25	9.05	9.90
8	3.45	3.90	4.30	4.70	5.15	5.55	6.00	7.00	8.00	9.10	10.15	11.20	12.30
9	4.05	4.60	5.15	5.65	6.15	6.65	7.15	8.40	9.75	11.05	12.35	13.65	15.00
10	4.75	5.40	6.05	6.65	7.25	7.85	8.45	10.05	11.65	13.20	14.80	16.40	18.00
12	6.30	7.20	8.10	8.95	9.80	10.65	11.50	13.75	15.95	18.20	20.45	22.65	24.90
14	.....	.....	10.20	11.50	12.80	14.10	15.40	18.40	21.35	24.30	27.25	30.20	33.15
16	.....	.....	.....	.....	16.60	18.30	20.00	23.80	27.60	31.40	35.20	38.95	42.75
18	.....	.....	.....	.....	.....	25.20	29.90	34.65	39.40	44.10	48.85	53.55	.....
20	.....	.....	.....	.....	.....	.....	36.75	42.55	48.35	54.15	59.90	65.70	.....
22	.....	.....	.....	.....	.....	.....	44.25	51.35	58.45	65.55	72.65	79.75	.....
24	.....	.....	.....	.....	.....	.....	52.55	61.00	69.55	78.10	86.60	95.15	.....

GRINDING WHEEL DRESSERS
VINCENT

Huntington Hooded

Made of best grade of gray iron, machined accurately and true. Black enamel finish.

Nos.	Each	For wheels, in.	Lgth., in.	Wt. ea., lbs.
0	\$0.75	Up to 1 1/2	11	1 1/4
1	1.50	1 1/2 to 2	12	2

EXTRA CUTTERS

Heat treated by special hardening formula.

Nos.	Per doz. sets	Per set	Diam., in.	Size hole, in.
0	\$1.00	\$....	1 1/8	1/4
1	2.00	....	1 1/2	1/2
2	....	0.75	2 3/8	5/8



Sherman

Cast iron. Black enamel finish.

Nos.	Each	For wheels, in.	Lgth., in.	Wt. ea., lbs.
1	\$1.50	1 1/2 to 2	12	2
2	2.50	2 1/4 & over	15	4 1/4

EXTRA CUTTERS

Nos.	Per doz. sets	Diam., in.	Size hole, in.
1	\$2.50	1 1/2	1/2
2	5.00	2 3/8	5/8

WIRE WHEEL BRUSHES



Fine Wire Drawn
Made of straight steel wire.

Thoroughly seasoned hardwood hub with lead filled center.

Used especially by platers and metal finishers.

Specifications

Nos.	Width of face, in.	Diameter of hub, in.	Size of wire
2303	5/8	1	.003
2304	3/4	1	.003
2404	3/4	1 1/2	.004
2504	1	2	.004
2604	1 1/4	3	.004

Nos.	Per doz.	Dia., in.	Rows	Wt. per doz., lbs.
2303	\$15.00	3	3	2 1/4
2304	19.00	3	4	3
2404	25.50	4	4	6
2504	33.00	5	4	9
2604	46.50	6	4	16

Note—Specify size of arbor hole.

BUFFING ROUGE

Hard, Dark Oxide

A silver rouge. Very fast cutting with exceptional coloring qualities for flat and holloware.

No. W & A—1 1/2 lb. sticks.....\$0.60



Assortment consists of 12 wheels, 24 sets of steel bushings, grinding wheel hand book and a rack 14 inches wide, 7 1/2 inches deep, 10 1/2 inches high.

Arbor holes in wheels, 1 inch.

Per assortment

No. GB—Wt. assort. 22 lbs.....\$30.35

One each of the following wheels in the assortment.

Nos.	List each	Size, in.	Grain and grade
GR402	\$1.05	3 x 1/2	60N Coarse
GR403	1.05	3 x 1/2	100N Med.
GR405	1.60	3 1/2 x 1/2	100N Med.
GR406	1.75	4 x 1/2	46N Coarse
GR408	2.05	4 x 3/4	46N Coarse
GR410	2.35	4 x 1	46N Coarse
GR412	2.90	5 x 3/4	46N Coarse
GR414	3.30	5 x 1	46N Coarse
GR415	3.30	5 x 1	80N Med.
GR416	3.50	6 x 3/4	46N Coarse
GR417	3.50	6 x 3/4	80N Med.
GR418	4.00	6 x 1	46N Coarse

Steel bushings included.

WIRE WHEEL BRUSHES



Steel Clad

Wires held securely between two steel plates. Arbor holes made to fit directly on shaft.

Specifications

Nos.	Thickness, in.	Diameter of face plates, in.	W & M gauge wire
135	3/8	3	33-36
136	3/8	2	33-36
137	3/8	2	33-36
138	3/8	2	33-36

Nos.	Each	Diameter inches	Weight each, lbs.
135	\$0.75	6	1/2
136	.70	5	3/8
137	.63	4	1/4
138	.55	3	1/8

Note—Specify size of arbor holes.

BUFFING WHEELS

LOOSE MUSLIN UNBLEACHED

Hand sewed 64/68 sheeting.

Size, in.	Each	Ply	Rows of sewing
3	\$0.25	20	3
4	.25	40	3
5	.30	40	3
6	.40	40	3
7	.50	40	3
8	1.00	60	4
10	1.50	60	4
12	2.00	60	1
12	2.00	60	4
10	5.00	20	3/8 in. spiral

LATHES



27 Inch

Heavy gray iron castings, all parts carefully machined.

Full 27 inches between centers with an 8 inch swing over bed.

Heads equipped with ball thrust bearings.

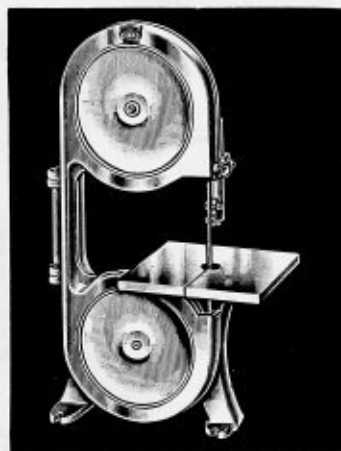
Can be increased to 39 inch capacity with a 12 inch bed extension. Width of base 5 inches, height over all 8 inches. V-pulley, 4-step.

Gray enamel finish.

Each

No. 3050—Wt. each 27 lbs.\$6.55
No. 305008—12 in. extension..... 1.10

BAND SAWS



9 Inch

For the home craftsman or shop requiring a 9 inch saw. It has all the features of a larger factory band saw.

Gray cast iron tilting table 9x9 inch, machine ground to a smooth accurate surface. A large trunnion with double warp supports the table. Tilts at any angle from 0 to 45°, adjustable pointer indicates the angle of tilt. Automatic stop is used for squaring the table at the most frequently used position of the table.

Depth capacity 4¼ inches with guards closed, 4¾ inches with guards open.

Equipment consists of saw and guards. 4 inch pulley and ¼ inch blade.

Gray enamel finish.

Each

No. 3025—Shipping wt. 50 lbs.\$17.35

WOOD WORKING MACHINES

DURO TABLE SAWS



7 Inch

Milled and machined saw table 10x14 inches. Table rises and lowers by hand wheel. Also tilts smoothly and evenly on wide trunnions. Can be tilted to any angle up to 45 degrees. Equipped with mitre gauge graduated up to 60 degrees. Removable throat provided for dado head and sander. Steel rip fence. Saw guard and 7 inch blade.

Gray enamel finish.

Each

No. 3010—Shipping wt. 37 lbs.\$13.15

JIG SAWS



12 Inch

One-piece gray cast iron frame. Upper and lower shafts are ground and polished steel. Tempered steel cam operates cross head in conjunction with torsion type springs. Smooth running. 8 inch table tilts at 45 degrees. Locks at any point. Adjustable saw guide, foot guide also acts as a hold down. Height over all 16 inches. Gray enamel finish.

Each

No. 3000—Shipping wt. 20 lbs.\$6.05

JOINTERS



Heavy gray iron castings, milled and machined tables, operated by hand knobs. Safety type 3 blade cutters, cuts to 4 inch width and ¼ inch maximum depth. Cam lever locks front table. Easily read graduated protractor scale. Table 21x5 inches. 3 inch rabbetting arm. Bronze bearings. ½ inch pulley.

Each

No. 3030—Shipping wt. 36 lbs.\$14.80

BELT SANDING



For Horizontal and Vertical Sanding

Table is removed for horizontal sanding of long pieces with the grain. Used vertically with table and mitre gauge for butt sanding and straight and compound angles. With table tilted and mitre gauge set any angle may be sanded. Locked by hand knob.

Sanding belts, 6x44 inches.

Table 6½x10 inches, tilts at 45 degrees in one direction and 15 degrees in another direction.

Main table 6x12½ inches.

Belt tension adjusted by hand knobs. Length 22 inches, 15½ inches wide, 9 inches high.

Each

No. 3065—Shipping wt. 63 lbs.\$23.60

PORTABLE BELT SANDERS



For sanding table tops, cabinets, floors, etc. Leaves no ridges, corrugations or rings. Pistol grip handle. Rubber covered crown pulleys run on oilless bronze bearings preventing oil dropping on floors. Conveniently located adjustments for setting tension. Should be run at motor speed of 1750 R.P.M. Length 17 inches.

Each

No. 3061—Shipping wt. 10½ lbs.\$11.95

FLEXIBLE SHAFTS



48 Inch

Music wire inner core, cadmium plated flexible outer casing. Equipped with inner and outer motor coupling. Chuck adapter, washers, three jaw ¼ in. chuck and auxiliary handle.

Each

No. 3070—Shipping wt. 5 lbs.\$ 6.00

No. 307033—43 in. shaft extension... 3.30

No. 3073—Heavy duty ¾ in., 60 in. long 14.25

WOOD WORKING MACHINES

DELTA

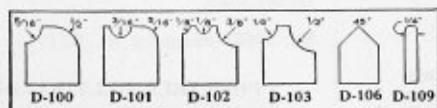
SHAPERS

Mounted on stand. No. 915, $\frac{1}{2}$ H.P. motor is recommended to be used for this unit. Motor is mounted on special bracket and carries a guard which completely encloses belt and motor pulley. Speed 10,000 R.P.M. Spindle carried in double seal ball bearings. Spindle travels $\frac{3}{4}$ inch. No back lash spindle adjustment, spindle height lock, $\frac{3}{4} \times \frac{3}{4}$ in. groove in table which is $18 \times 15\frac{1}{2}$ in. 25 in. fence. Over all measurement, 25 in. wide, $36\frac{1}{2}$ in. high, $28\frac{1}{4}$ in. front to back, height to table 34 inches.



Nos.	Item	Each
1188	Shaper with stand, less motor; wt. 176 lbs.	\$44.45
1180	Shaper only; wt. each 57 lbs.	28.85
1181	Stand only; wt. each 51 lbs.	7.95
1183	Belt guard and motor bracket.	5.25
1185	$5\frac{1}{2}$ in. diam., $\frac{5}{8}$ in. bore pulley.	1.55
410	V belt 41 in. circumference.	.85

UNIVERSAL CUTTERS FOR SHAPERS



Chrome Vanadium Steel

Will produce hundreds of shapes. $\frac{1}{2}$ inch hole. Collars are $\frac{3}{4}$ inch thick.

Nos.	Item	Each	Nos.	Item	Each
D100	As above	\$1.10	D142	$\frac{3}{32}$ spacing	\$0.15
D101	As above	1.10	D143	$\frac{1}{16}$ spacing	.15
D102	As above	1.10	D144	$\frac{3}{32}$ spacing	.15
D103	As above	1.10	D145	$1\frac{1}{8}$ spacing	.15
D104	1 in. straight	1.10	D146	$1\frac{1}{2}$ spacing	.15
D105	$1\frac{1}{2}$ in. straight	1.50	D147	$1\frac{1}{2}$ spacing	.20
D106	45 degree	1.10	D148	$1\frac{1}{2}$ spacing	.20
D107	$\frac{1}{2}$ in. straight	1.10	D149	$1\frac{1}{2}$ spacing	.20
D108	$\frac{1}{4}$ in. straight	.85	D152	Wood box	.35
D109	$\frac{1}{4}$ in. as above	.85			

ABOVE CUTTERS IN SETS

Consists of one each D100, D101, D102, D103, D104, D105, D106, D107, D108, D109 and collars D142 to D149.

No.	Wt. per set $3\frac{1}{2}$ lbs.	Per set
No. 1182		\$11.90

SASH AND CABINET CUTTERS AND COLLARS

Nos.	Item	Each	Nos.	Item	Each
D120	Ogee	\$1.10	D140	$\frac{1}{4} \times 1\frac{1}{2}$	\$0.15
D121	Female sash	1.10	D141	$\frac{3}{8} \times 1\frac{1}{2}$	.15
D122	Male sash	1.10	D150	$\frac{3}{8} \times 1\frac{1}{2}$	.20
D123	Cab. R.H. Male	1.10	D151	$\frac{1}{4} \times 1\frac{1}{2}$	.20
D124	Cab. L.H. Male	1.10	D154	Wood box	.35
D125	Cab. R.H. Female	1.10	SR328	8 t u b spindle, with screw and Allen wrench	1.15
D126	Cab. L.H. Female	1.10			
D127	$\frac{3}{8}$ in. straight	.85			
D130	$\frac{3}{8}$ in. str. sash	1.10			

ABOVE CUTTERS AND COLLARS IN SETS

One each D108, D120 to D127, D130, D140, D141, D150, D151 and SR328 Stub spindle and wrench. Packed in neat slide top wood box.

No.	Wt. per set 3 lbs.	Per set
No. 1184		\$11.90

CIRCULAR SAWS

8 Inch Timken Bearing

Cuts to $2\frac{1}{4}$ Inch Stock

Mounted on stand. No. 820, $\frac{1}{2}$ H.P. motor recommended to be used with this unit.

Table 15×18 inches. Cuts up to $2\frac{1}{4}$ inch thickness. Timken tapered bearings carrying saw arbor built for heavy service.

Rip gage extension gives all the advantages of a four foot table, auto set mitre gage for absolute accuracy. When table is raised or tilted, rip gage is not thrown out of alignment.



Nos.	Item	Wt. ea., lbs.	Each
878	Circular saw unit, less motor	122	\$40.35
860	Circ. saw only	...	32.85
5500	$\frac{3}{4}$ in. V pulley	...	.75
560	$22\frac{3}{4}$ in. V belt	...	1.00
329	Stand only	...	5.75

10 Inch Ball Bearing, Cuts $3\frac{1}{4}$ Inch Stock

Not mounted on stand and furnished without motor. Table 20×27 in., $12\frac{1}{2}$ in. in front of blade, 5 in. at rear table, increased to 27×34 inches if necessary. Large handle raises and lowers table. Micro rip fence adjustment, 36 inch guide bar. Graduated in inches and 16ths. Guard folds out of way. Auto set mitre gage with automatic stops at 90 and 45 degrees. Table raising and tilting operated by handle. Cam lock on rip fence. Scales show height and tilt of table.

Nos.	Item	Shipping wt. ea., lbs.	Each
1160	Circular saw, less motor	190	\$54.85
560	56 inch V belt	1	1.00
5500	V pulley $\frac{3}{4}$ in. bore	$1\frac{1}{2}$	.75
1181	Steel stand	51	7.95

JOINTERS

4 Inch Ball Bearing

Mounted on stand, $\frac{1}{2}$ H.P. motor recommended to be used with this unit.

Length 23 inches over all, $9\frac{1}{2}$ in. wide, $7\frac{1}{2}$ in. high front table is $5\frac{1}{4}$ in. wide and has additional 3 in. rabbeting arm, rear table $5\frac{1}{4}$ in. wide and with $\frac{1}{4} \times \frac{3}{4}$ inch rabbeting arm. Ball bearing cutter head, with high speed steel knives. Fence tilts at 45 degrees on a pivot. Aluminum flap guard.



Nos.	Item	Weight ea., lbs.	Each
296	Unit, less motor	76	\$31.85
301	Jointer only	...	23.85
5500	5 in. V pulley $\frac{1}{2}$ in. bore	...	.75
510	$20\frac{3}{4}$ in. V belt	...	1.00
304	Steel stand only with chute	...	6.25

Note—Motor for above items see page 93.

WOOD WORKING MACHINES

DELTA

JOINTERS

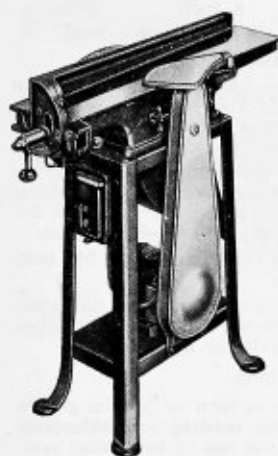
6 Inch Ball Bearing Precision

Mounted on stand, No. 900 motor recommended for this unit.

Length 37½ inches, 12 in. wide, 10 in. high, 7½ in. wide.

Fence tilts on bracket, the swinging stop with adjustable stop screws at 45, 90 and 135 degrees insures that once the screws are set, the fence will return same accurate setting after tilting. Handle controls tilting lock and a twist of wrist tilts the fence.

Nos.	Item	Each
660	Complete without belt guard; less motor; ship. wt. 154 lbs.	\$57.90
654	Jointer with front guard	48.85
560	22¾ in. V belt	1.00
5700	½ in. bore V pulley	1.20
656	Steel stand	6.85
661	Alum. belt guard	6.85
662	Rear knife guard	3.60



Note—Illustration shows unit with belt guard which is extra cost, see list above.

DRILL PRESSES

Triple Duty

New Departure Precision Type Ball Bearings

Can be used for drilling, boring, mortising, carving, shaping, sanding, surface grinding. Takes drills up to ½ inch.

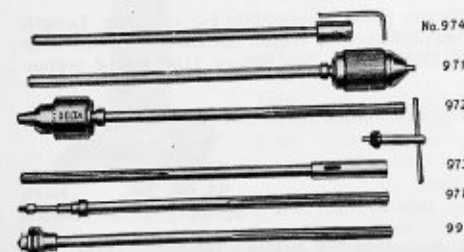
Over all height 68 inches, 2¾ inch columns, table travels 43 inches, spindle travels 4 inches, drills to center of 14 inch circle, table size 10x10 inches, spindle speeds 590, 1275, 2450, 5000.

Equipped with tilting table, graduated quill with adjustable pointer for depth drilling. Stop rod for repetition depth drilling.



Nos.	Items	Each
970	Triple duty drill V belt and pulley; less motor; ship. wt. 145 lbs.	\$36.45
989	Floor model drill geared chuck and spindle; less motor; wt. 145 lbs.	39.95
971	Spindle with Delta Grip chuck	3.45
972	Spindle with balanced geared chuck	6.95
973	Spindle No. 1 Morse taper hole	3.05
974	Spindle, ½ in. hole for router bits	2.20
977	Spindle for ⅝ in. shaper cutter	1.95
991	Spindle for cup wheel	2.20

Note—Nos. 800, 900 or 920 motors suitable for above, see page 93.



No. 974

These
spindles
are
listed
above.
971
972
973
977
991

DRILL PRESSES

Triple Duty

New Departure Precision Type Ball Bearings

Same as No. 970 except for the base and shorter column.

Can be used for drilling, boring, mortising, carving, shaping, sanding, surface grinding. Takes drills up to ½ inch.

Over all height 36½ inches, 2¾ inch columns, chuck to table 11½ inches, chuck to base 17 inches. Speeds 590, 1275, 2450, 5000, R.P.M.

Double seal ball bearings eliminate all lubrication problems. Free floating spindle. Tilting table, Delta grip chuck, graduated quill, adjustable pointer for depth drilling. Stop rod for repetition depth drilling.



Nos.	Items	Shipping wt. ea., lbs.	Each
995	Drill with belt and motor pulley—less motor	110	\$31.45
387	Extra belts for above	1	.85
999	Drill as above but with geared chuck—less motor	110	34.95

Note—Nos. 800, 900 and 920 motors suitable for above, see page 93.

17 Inch Streamline Belt Guard New Departure Self-Sealed Ball Bearings

Designed to serve the needs of the general shop, toolroom or production shop.

The advanced engineering evidenced throughout and the very moderate cost makes this a machine that no modern progressive shop can afford to be without.

Capacity ¾ inch cast iron.

Belt is completely guarded, guard quickly removable for speed changing, belt tension adjustable.

Built-in depth stop, gage, depth scale spindle, return-spring housing.

Over all height, 66 inches; 3½x60 inch column; width 18 inches; front to rear 27 inches. Capacity spindle to table 34 inches, spindle to base 44½ inches.

Speeds 385, 600, 935, 1450 and 2240 R.P.M.

Large spindle carried in two self-sealed ball bearings. 16 tooth spline drive. Floating device, sensitive feed, adjustable quill housing, head ideal for special set ups.

Foot feed instantly installed on floor or bench types.

Equipped with No. 2 Morse taper shank spindle.

Furnished with motor pulley and belt.

Nos.	Items	Shipping wt. ea., lbs.	Each
1370	Floor model	450	\$ 89.50
1375	Bench model	500	114.50
1376	Floor model with ½ inch guard chuck	450	94.85
1377	Bench model with ½ inch geared chuck	500	119.85
1371	Foot feed for No. 1371	...	16.85

Note—Above less motors.



WOOD WORKING MACHINES

DELTA

BAND SAWS

14 Inch Ball Bearings

Safety type disc wheels, running on precision ball bearings. Heavy drive shaft with tapered end, keyed to prevent slippage.

Independent setting precision guides can be set with micrometer accuracy. The adjustments are completely independent of each other. Hollow cast upper arm.

Heavy saw table, 14x14 inches. Swings easily, tilts 45 degrees to right and 10 degrees to left. Positive stops. Rip gage attachments. Height over all of saw 41 1/4 inches, width 16 1/4 inches, front to back 24 3/4 inches.

Equipped with sturdy, strong wheel guards. 1/2 to 3/4 inch blades can be used.

No. 900 motor recommended for this unit see page 93.

Can be fitted with height attachment at extra cost, allowing materials up to 12 inches to be cut.



Nos.	Item	Shipping wt. ea., lbs.	Each
892	Unit with belt and pulley, less motor	183	\$57.15
890	Band saw only	152	48.85
568	V belt	...	1.00
5275	V pulley, 2 3/4 in. diameter, 1/2 in. bore	...	.45
891	Steel stand	30	6.85

10 Inch

New Departure Double Sealed Ball Bearings

Accurate true running disc wheels carried on New Departure self-sealed ball bearings. Lubricated at factory for entire life. Accurately ground main shaft. Micrometer-adjustment upper and lower guides.

Upper wheel tilting device and tension scale. Adjustments made from front of table. Operators do not come in contact with saw. Heavy cast iron swinging table.

Over all dimensions, height 33 1/2 inches; 11 1/4 inch wide; 23 inches from front to back. Capacity, 10 inch blade upper arm, 6 inch blade under guide.

No. 800 or 900 motor recommended for this unit; see page 93.

Furnished without motor.



Nos.	Item	Shipping wt. ea., lbs.	Each
768	Unit with guards, blade and 5 inch pulley, less motor	100	\$29.90
777	Unit as above with stand, less motor	140	37.10
5275	V pulley, 2 3/4 in. dia., 1/2 in. bore	3/4	.45
560	V belt 22 3/4 in. C. to C.	1	1.00
329	Stand 29 1/4 in. high	31	5.75

Blades—74 Inches

Nos.	Width in.	Cut radius, in.	Each	Nos.	Width in.	Cut radius, in.	Each
770	3/8	1/4	\$1.10	773	3/8	1	\$1.10
771	7/16	1/2	1.10	774	1/4	3/4	1.60
772	1/4	3/4	1.10				

SANDERS

6 Inch

New Departure Double Seal Ball Bearings

A heavy and husky enough sander to do any sanding and polishing operation in the amateur or professional shop at a moderate price.

Completely ball bearing equipped, lubricated at factory for life of machine. Completely enclosed and guarded in accordance with all safety requirements.

Heavy drive shaft carrying a 5 1/2 inch diameter drum.

No rubber covering required on drum. Adjustable deflector or drum hood catches Operates vertically or horizontally.



practically all sawdust.

Lapless sanding belts 6x48 1/2 inches long.

Size tilting table 7 1/2 x 14 1/4 inches with 3/8 inch by 3/4 inch groove for mitre gage. Adjustable fence for edge sanding and adjustable back stop for flat sanding are available for use in horizontal position. 1/2 or 3/4 H.P. repulsion induction motor recommended for this unit, see page 93.

Nos.	Item	Shipping wt. ea., lbs.	Each
1400	Sander only, no fence back stop, table, pulley, belt or motor	110	\$32.50
1402	Same as above on stand	144	40.60
560	56 in. circumference pulley and belt	1	1.00
5590	5 in. pulley, 3/4 in. bore	1 1/2	.75
1401	Tilting table	20	6.85
1403	Back stop with bracket	4	1.85
1410	Wood fence with bracket	5	2.60
891	24 1/4 x 15 7/8 x 7/8 in. steel stand	30	6.85
1404	Garnet lapless belt, 80 grit (fine)	1	.65
1405	Garnet lapless belt, 40 grit (coarse)	1	.80

SCROLL SAWS

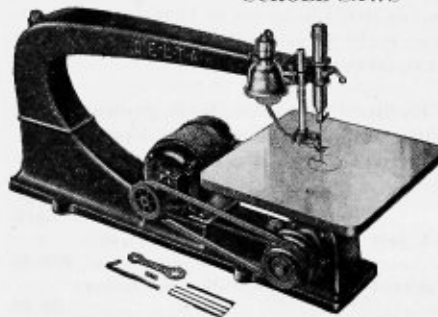
De-Luxe 24 Inch

Timken Bearings

Designed for fast, accurate work. Sturdily built.

Cuts wood up to 2 inch thick almost as fast as a band saw.

Extra heavy ground shaft runs on Timken bearings.



Every type of blade can be used in the patented steel Delta chuck which also holds files and sanding attachment, having 1/4 inch shank.

Finely machined cast iron table, 14x14 inches, which is locked to trunnion seats by powerful and convenient hand knob. Table tilts smoothly and exact degree of tilt is shown by graduated arc and adjustable pointer on gage. Bracket can be swung through 90 degrees in either direction for large work.

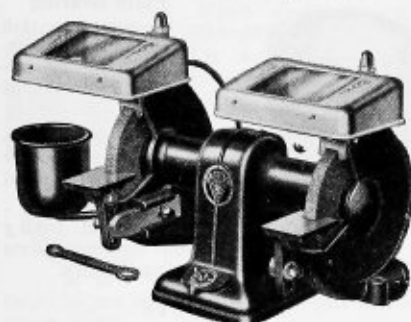
Built-in saw dust blower readily accessible for cleaning. Length over all 35 inches, width 14 inches, height 23 inches. Four step speeds 650, 1000, 1300, 1750 R.P.M. No. 800 or 1100 motor recommended, see page 93.

Sabre and three jewelers blades furnished.

Nos.	Item	Shipping wt. ea., lbs.	Each
1200	Unit with pulley, less motor	117	\$28.85
340	V belt 18 inches C. to C.	...	.80
718	V pulley for motor	...	.75

BENCH GRINDERS

DELTA



Belt Drive New Departure Ball Bearings

Designed for general shop work, adjustable tool rests and spark guards. Plenty of working space between wheel guard and drive housing. No interference with work when grinding. Safety code built in wheel guards.

4 1/4 inch cast iron water pot. Electric lamp with armored cable. 7 inch Aloxite grinding wheels. Speed recommended 1725 R.P.M. No. 800 or 900 motors recommended shown on this page.

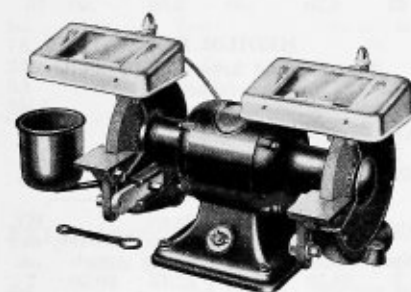
Nos.	Item	Shipping wt. ea., lbs.	Each
1248	Unit complete without lamp bulbs, motor pulley, or motor	58	\$27.75
387	V belt	..	.85
5500	V pulley 5 in. diam.	..	.75

Motor Driven New Departure Ball Bearing

Built same as belt drive machine above but with motor attached.

Width 22 3/4 in., height 13 1/2 in., front to back, 10 1/2 inches.

For 110 volt A.C. 60 cycle single phase only. Motor 3450 R.P.M. recommended.



Nos.	Item	Shipping wt. ea., lbs.	Each
1240	Unit with lamp attachments	88	\$45.50
1245	Grade J grinding wheel	2	3.25
1247	Grade K grinding wheel	2	3.25
1250	Lamp attachment and safety shields	3	5.75
1280	Lamp bulb. Extra	3/2	.40

On Pedestal New Departure Ball Bearings

Built same as No. 1200 above, except on pedestal and water pots in tool rest on pedestal.

Floor space required 14 1/2 x 8 inches.

Single phase—1/2 H.P. ball bearing motor, 110 volt, A.C. current.

Three phase—1/2 H.P. ball bearing motor, 220 volt, A.C. current.

Speed 3450 R.P.M.



Nos.	Item	Ship. wt. ea., lbs.	Each
1242	Single phase toggle switch	194	\$69.50
1268	Single phase push button switch	194	77.85
1246	Three phase push button switch	194	83.50

Note—Less lamp bulbs.

NOTE—Special Catalog Furnished on Delta Woodworking Machines, Motors, etc. We will be pleased to send you a copy.

ELECTRIC MOTORS



Ball and Sleeve Bearings

Casings of strong construction. Built of the highest grade material obtainable, long wearing switches.

Split phase motors cannot be used on both 110 or 220 volt circuits, they are built for one voltage only.

1/2 H.P. Ball Bearing, Split Phase, 110 Volts, 60 Cycles A.C. Current

No.	Speed	1725 R.P.M., 8 ft. cord, rubber plugs, two blocks; shipping wt. 31 lbs.	Each
No. 800			\$13.60

1/2 H.P. Ball Bearing Repulsion Induction 110-220 Volts, 60 Cycles A.C. Current

No.	Speed	1725 R.P.M., 8 ft. cord, rubber plugs, two blocks; shipping wt. 32 lbs.	Each
No. 900			\$19.95

1/2 H.P. Ball Bearing, Reversible Capacitor, 110 Volts, 50 or 60 Cycles, A.C. Current

No.	Speed	3450 R.P.M., 8 ft. cord, rubber plug reversing switch, 60 cycles; wt. each 43 lbs.	Each
No. 915			\$24.50
No.	Speed	2850 R.P.M., 8 ft. cord, rubber plug reversing switch, 50 cycles; wt. each 43 lbs.	Each
No. 916			24.50
No.	Speed	Same as No. 915 but with toggle switch instead of reversing switch; wt. each 41 lbs.	Each
No. 917			21.75
No.	Speed	Reversing switch and cord for use with No. 917 or split phase motor; wt. each 2 lbs.	Each
No. 1116			3.95

1/2 H.P. Sleeve Bearing, 110 Volts, 60 Cycles, A. C. Current

No.	Speed	1725 R.P.M., 8 ft. cord, rubber plug; shipping wt. 27 lbs.	Each
No. 1100			\$8.85

1/2 H.P. Ball Bearing Repulsion Induction 110-120 Volts, 60 Cycles A.C. Current

No.	Speed	1725 R.P.M., 8 ft. cord, rubber plug; shipping wt. 65 lbs.	Each
No. 820			\$31.50

1/2 H.P. Sleeve Bearing Repulsion Induction 110-220 Volts, 60 Cycles, A.C. Current

No.	Speed	1725 R.P.M., 8 ft. cord, rubber plug; shipping wt. 65 lbs.	Each
No. 1120			\$26.85

3/4 H.P. Ball Bearing Heavy Duty, Single and Three Phase, 110-220 Volts, 60 Cycles, A.C. Current

No.	Speed	1725 R.P.M., repulsion induction, 110-120 volts, 8 ft. cord, rubber plug; shipping wt. 80 lbs.	Each
No. 924			\$37.50
No.	Speed	1725 R.P.M., three phase, 220 volt, 8 ft. cord without switch, cord or plug; shipping wt. each 80 lbs.	Each
No. 922			39.85

LATHES

DELTA-DOUBLE DUTY

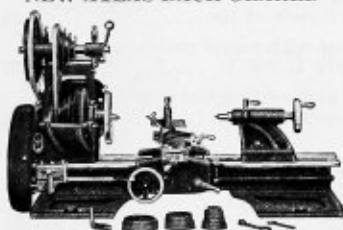


11 Inch Timken Ball Bearings

Strong rigid bed, index mechanism. Quick acting, set-over tail piece. Four speeds, 900, 1400, 2200, 3400 R.P.M. Three inch face plate. Will swing pieces 11 inch diameter over bed and work 37 inches long, can be turned between centers. Index mechanism on headstock permits accurate division of work.

Nos.	Each	Item	Wt. ea., lbs.
950	\$53.05	Lathe unit less motor	190
930	28.85	Lathe only	82
947	21.85	Stand legs and bolts	108
588	1.10	V belt	
932	1.25	V Pulley	
945	14.95	Dr. Legs only	65

NEW ATLAS BACK GEARED



Screw Cutting

The highest standards of accuracy extend to every operation in the machining of a part of this lathe; each part meets minimum tolerance limits checked by precision instruments and master gages.

Swing over bed 10 1/4 inches; swing over carriage 6 1/2 inches; 16 spindle speeds; speed range 28, 45, 70, 83, 112, 134, 164, 211, 266, 345, 418, 500, 685, 805 1270 and 2072 R.P.M. Thread cutting ranges 4 to 96 right or left hand.

Cross feed travel, 6 1/2 inches.

All models, depth over all 21 inches; height over all 24 inches.

Nos.	Each	Cap. be- Over			Wt. each, lbs.
		Lgth. bed, in.	between ctrs., in.	all over, in.	
1036	\$97.50	36	18	40	242
1042	103.50	42	24	46	254
1048	112.50	48	30	52	262
1054	124.50	54	36	58	267

Above prices are without motor.

Note—We carry a full line of Atlas tools, factory catalog on request.

DRILL CHUCK SAWS

WYCO, UNIVERSAL



Fits any drill chuck.

Cuts through wood, metal, bakelite, etc. Reaches those hard to get at places where other tools fail. Will take 1/4 inch shank files and saves time as a filing machine. For use with electric drills or flexible shaft. Each outfit contains complete sawing unit, six additional saw blades and 1/4 inch chuck for holding files.

Each
Wyco—Wt. each 4 lbs. \$15.00

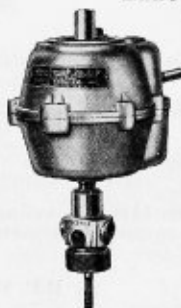
One in a box.

Extra Saws

Nos.	Per doz.	Kind	For
10	\$0.75	1/4 in. wide	Wood
110	.90	3/8 in. wide	Wood
22	.75	Fine Tooth	Metal
14	.75	Med. Tooth	Metal
100	.90	Coarse Tooth	Fibre
25	1.50	High Speed Steel	Hard Surface

TAPPING ATTACHMENTS

ETTCO, EMRICK



Sensitive High Speed

Used on a drill press for tapping screw holes.

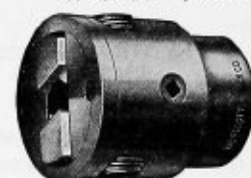
Sensitive power regulated by pressure on drill press lever; if top sticks the clutch slips. Top idles in, not reverse. Ball bearing.

Nos.	Each	For pipe taps cap.		Morse shank each, lbs.	Wt. each, lbs.
		Nos.	Chuck		
100	\$40.00	2 to 6	Jacobs	1 or 2	4
200	45.00	3 to 10	Jacobs	1 or 2	4 1/2
1B	38.00	6 to 1/4"	Etcco	1 or 2	5 1/2
2B	55.00	10 to 3/8"	Etcco	2 or 3	8 1/2
3	85.00	1/2"	Etcco	2	11 1/2
4	80.00	3/4"	Etcco	2-3-4	12
5	95.00	1"	Etcco	3-4	20

One in a box.

DRILL CHUCKS

WESTCOTT, LITTLE GIANT



Semi-steel body. High carbon heat treated jaws. Alloy steel screws. Malleable iron or steel rings. Alloy steel wrenches.

Nos.	Size	Nos.	Each	Diam., in.	Capac., inches
20A2	00		\$10.65	1 1/2	0 to 1/4
20A4	0		12.00	2 1/2	0 to 1/2
20A5	1		13.50	3	0 to 3/4
20A7	2		17.50	3 1/2	0 to 1

One in a box.

DRILL CHUCKS

JACOBS

Plain Bearing

Key operation provides easy tightening and release without rotation of spindle.

Increased grip assured by new methods of thread generation.

Hardened body and stronger parts result in twice the wearing quality.



LIGHT DUTY

For Tapered Arbors and Spindles

Specifications

Nos.	Cap., in.	Taper hole	Diam., in.	Lgth., in.
1A	0-1/4	1	1 1/4	1 1/8
2A	0-3/8	2	2 1/8	1 1/2
33	1/2-1/2	33	3 1/8	1 3/4

Extra

Nos.	Each	Jaws		Keys, & nuts, sleeves, ea.		Wt. oz.
		each	per set	each	each	
1A	\$4.50	\$0.30	\$1.75	\$0.50	4 1/2	
2A	5.50	.40	2.25	.60	15	
33	6.50	.40	2.50	.60	16	

MEDIUM DUTY

For Tapered Arbors and Spindles

Specifications

Nos.	Cap., in.	Taper hole	Diam., in.	Lgth., in.
7	0-1/4	2	1 1/4	2 1/8
32	0-3/8	2	1 3/4	2 1/2

Extra

Nos.	Each	Jaws		Keys, & nuts, sleeves, ea.		Wt. oz.
		each	per set	each	each	
7	\$4.50	\$0.30	\$1.75	\$0.50	7	
32	5.50	.40	2.25	.60	16	

For Threaded Spindles

Specifications

No.	Cap., in.	Thr's, in.	Dia., in.	Lgth., in.
34B	0-1/2	5/8-3/4-43	2 1/8	3 3/8

Extra

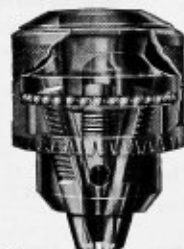
No.	Each	Jaws		Keys, & nuts, sleeves, ea.		Wt. oz.
		each	per set	each	each	
34B	\$9.00	\$0.50	\$3.25	\$0.90	1 1/2	

Ball Bearing

Ball bearings eliminate friction resulting in jaws that smoothly and rapidly spin into position.

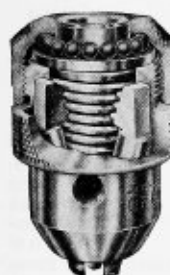
Ground parts. For heavy duty use. Accurate, powerful and durable.

With key.



No.	18
Capacity, in.	1 1/8-3/4
Taper hole, in.	4
Diameter, in.	2 1/8
Total length, in.	5
Wt. each, lbs.	4 1/2
Each	\$15.00
Extra Keys	.75
Extra Jaws and Nuts	Per set 5.25
Extra Sleeves	1.50
All above, one in a box.	

DRILL CHUCKS **ETTCO BALL BEARING**



Hand operated, self-tightening.

It will tighten and center drill by the action of drilling.

Released by hand with a quick twist of the knurled body.

Its simple design consists of a cone shaped screw, directly actuating three gripping jaws.

Jaws are keyed in the body, the screw does not take the jaw torsional strain it only moves up or down.

Every part is hardened including the body.

Specifications

Nos.	Cap., in.	Taper hole Nos.	Diam., in.	Length, in.
1A	0-1/4	30	1 1/8	2 3/8
2A	0-3/8	2	1 3/4	3 1/2
3A	0-1/2	3	2 1/4	4 1/4
3 1/2 A	3/8-5/8	3	2 1/4	4 1/4

Nos.	Each	Wt. each, lbs.
1A	\$5.50	1 1/2
2A	6.50	1 3/4
3A	9.00	2 1/2
3 1/2 A	11.00	2 1/2

One in a box.

EXTRA ARBORS FOR ETTCO CHUCKS

With Morse Taper Shanks

Nos.	Each	Morse Taper Nos.
E1A	\$0.75	30
E2A	.75	2
E3A	1.00	3
E3 1/2 A	1.50	3

With Round Shanks

Nos.	Each	Diam. shank, in.
E1S	\$1.00	1 1/2
E2S	1.00	1 1/4

MILLERS FALLS



Straight Shanks

Made of steel, with three hardened jaws actuated by three small coil springs that cannot become damaged from without.

Knurled shell gives a good tightening grip. 1/2 x 2 1/2 inch shanks.

Nos.	Each	Cap., in.	Outside diam., in.	Weight each, oz.
5	\$1.90	0-1/4	1	7
6	2.25	0-3/8	1 1/4	10
7	3.10	0-1/2	1 1/2	17

One in a box.

DRILL CHUCKS **MILLERS FALLS**



Morse Taper Shank

Made of steel, with three hardened jaws actuated by concealed springs, that cannot become damaged from without.

Knurled shell gives a good tightening grip.

Nos.	Each	Cap., in.	Morse taper shank, Nos.	Weight each, oz.
5MT1	\$2.35	0-1/4	1	7
5MT2	2.50	0-3/8	2	7
6MT1	2.75	0-3/8	1	10
6MT2	2.90	0-3/8	2	10
6MT3	3.50	0-3/8	3	10
7MT1	3.60	0-1/2	1	17
7MT2	3.75	0-1/2	2	17
7MT3	4.40	0-1/2	3	17
7MT4	5.25	0-1/2	4	17

One in a box.

GOODSELL PRATT



Bit Shanks

Made of steel, three hardened jaws actuated by three small coil springs that cannot become damaged from without.

Knurled shell gives a good tightening grip.

Nos.	Each	Cap., in.	Outside diam., in.	Weight each, oz.
15B	\$2.00	0-1/4	1	6
15 1/2 B	2.30	0-3/8	1 1/4	9
16B	3.05	0-1/2	1 1/2	14

One in a box.

MILLERS FALLS

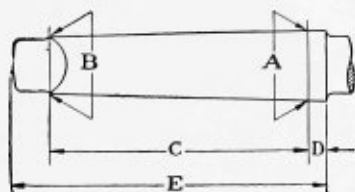


With Work Arbors

A combination of a three jaw chuck with a set of collars for holding wheels with 1/2 inch holes and a two step pulley for driving round belts. Shank fits round spindles.

Nos.	Each	Cap., in.	Fit spindle, inch	Weight each, lbs.
122 1/2	\$1.10	1/2	1 1/2	1 1/2
122 3/4	1.10	3/4	3/8	1 1/2

DRILL CHUCK ARBORS **JACOBS**



Taper Shank

Machined with accuracy. A discrepancy of a tenth of a thousandth in the taper may result in chuck inaccuracy to the extent of several thousandths of an inch.

Morse Standard Shank

Taper Nos.	Each	"E" Length, in.	Diameters "B", in.	At "A", in.
1	\$0.80	2 3/8	.369	.475
2	.80	3 1/8	.572	.700
3	1.20	3 3/8	.778	.938
4	2.00	4 3/8	1.020	1.231
5	3.50	6 3/8	1.475	1.748

Note—When ordering arbors always give taper number, also number of chuck for which arbor is required.



Straight Shank

For blacksmiths drills, etc. Accurately machined.

Size shank, in.	Each	Length, in.
1/2	\$0.75	2 1/2
3/4	.75	2 1/2

Note—When ordering straight shank arbors always state size of shank and number of chuck for which arbor is required.

WORK ARBORS **MILLERS FALLS**

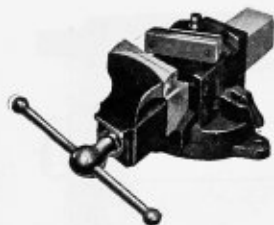


Fitted with a set of collars for grinding or buffing wheels up to 1/2 inch with 1/2 inch holes and a two step pulley for driving round belts. Shanks fit round spindles.

Nos.	Each	Fit spindle, in.	Weight each, lbs.
123 1/2	\$0.60	1/2	3/4
123 3/4	.60	3/8	3/4

VISES

PRENTISS MACHINISTS'

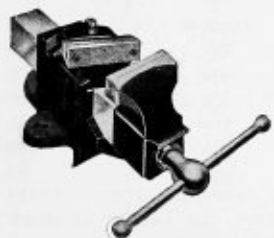


Self-Adjusting Jaws
Designed to hold irregular pieces.

Detachable steel jaws. Gray iron and steel casting body.

Stationary Bottom

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
1	\$13.50	2½	3½	13½
2	16.00	3½	4½	28
2½	19.00	4	5½	41
3	22.00	4½	6	54
4	35.00	5½	8	96
5	50.00	6	9	146
6	65.00	7	11	184



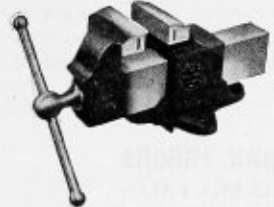
Self-Adjusting Jaws
Designed to hold irregular shaped pieces. Detachable steel jaws.

Gray iron and steel casting body.

Swivel Bottom

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
18	\$16.00	2½	3½	17
19	20.00	3½	4½	32
19½	24.00	4	5½	46
20	28.00	4½	6	65
21	44.00	5½	8	109
22	60.00	6	9	168
23	75.00	7	11	207

BULL DOG



Parallel Jaws
Steel jaws. Gray iron and steel casting body.

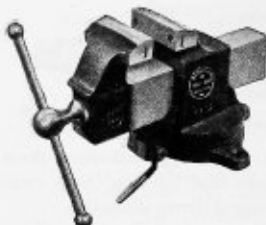
Stationary Bottom

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
512	\$10.00	3	4	22
513	11.25	3½	5	28
514	12.75	4	6	42
515	15.50	4½	7	55
516	20.00	5	8	72
517	30.00	5½	9	100
518	39.00	6	10	135
519	55.00	7	12	210

All above, open stock.

VISES

PRENTISS MACHINISTS'

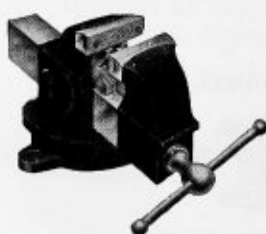


Parallel Jaws
Detachable steel jaws. Gray iron and steel casting body.

Swivel Bottom

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
522	\$13.00	3	4	28
523	15.00	3½	5	36
524	17.00	4	6	52
525	20.00	4½	7	65
526	30.00	5	8	85
527	38.00	5½	9	115
528	52.00	6	10	155
529	70.00	7	12	235

PRENTISS BLAKE COMBINATION

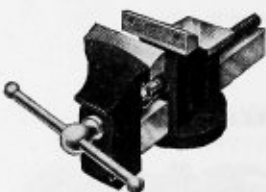


Parallel Jaws
Detachable steel jaws. Reversible high grade steel pipe jaws. Gray iron and steel casting body.

Swivel Bottom

Nos.	Each	Width jaws, in.	Holds pipe, in.	Wt. each, lbs.
180	\$10.50	2½	½ to 1	15
180½	12.50	3	¾ to 1½	22
181	17.50	3½	1 to 2½	55
182	24.00	4½	1½ to 3	80
182½	38.00	5	2 to 4	120

PRENTISS SHEPARD



Parallel Jaws
Detachable steel jaws. A central bolt nut and washer furnished with each vise for fastening to bench as a swivel vise, also provided with two bolt holes for permanently fastening to bench. Square anvil on back of body. Painted black with orange trim.

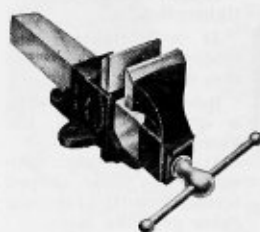
Swivel and Stationary Base

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
162	\$6.00	3½	4	16
163	8.00	4	6	30

All above, open stock.

VISES

PRENTISS BULL DOG COACH MAKERS'



Parallel Jaws
Detachable steel jaw faces cover entire gripping surface of the jaws. The deep throat and wide opening allow

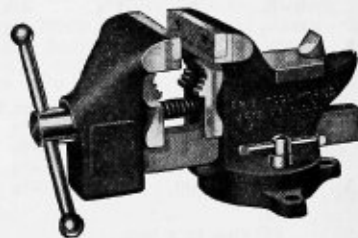
operator the maximum amount of room for holding work.

This vise is made to hold woodwork of every description but not for metal.

Stationary Bottom

No.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
59	\$16.25	4½	9	48

ERIE SUPERIOR COMBINATION



Parallel Jaws

Detachable steel jaws, drop forged steel pipe jaws. Cutting off tool on square anvil on top of vise. Gray iron and steel casting body.

Swivel Bottom

Nos.	Each	Width jaws, in.	Jaw opens, in.	Holds pipe, in.	Wt. each, lbs.
43	\$3.00	3	3½	¾ to 1¼	14
43½	4.50	3½	4	1 to 1½	17
44	7.50	4	4½	1½ to 2	28

STANLEY BENCH



Parallel Jaws Clamp Base

The screw body, head and collar, one-piece steel.

Square thread working in a malleable nut. Jaws meet tight. Can be clamped to 2 inch board or screwed to bench.

Blue Japanned, Plain Iron Jaws

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
741	\$1.60	1½	1¾	3¾
743	2.10	2	2	4
745	3.00	2½	2¾	5¾
746	4.20	3	3	10

Black Japanned, Steel Jaws

Nos.	Each	Width jaws, in.	Jaws open, in.	Wt. each, lbs.
761	\$1.80	1½	1¾	3¾
763	2.40	2	2	4
765	3.40	2½	2¾	5¾
766	4.90	3	3	9¾

VICES

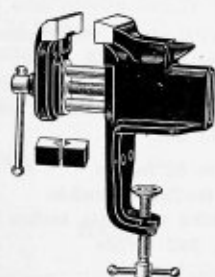
DEFIANCE CLAMP BENCH



Well made, finished bright red, machine-cut steel screw and two steel supporting rods impart strength and sturdiness. Anti-slack spring, over the rods and screw, takes out play in jaws. Jaws machined and fitted to meet squarely.

Each

No. 1207—1½ in. jaws, open 2 in.;
wt. each 2 lbs.\$0.90



With Extra Pipe Jaws

Well made, finished bright red, machine-cut steel screw and two steel supporting rods which impart strength and sturdiness. Anti-slack spring, over the rods and screw, takes out play in jaws. Jaws are machined and fitted to meet squarely. Pipe jaws fit in pocket of vise and hold round work.

Each

No. 1209—2½ in. jaws, open 2¾ in.,
holds pipe jaws; wt. each 3½
lbs.\$1.30

BLACKSMITHS'



Solid Box

Japanned forged steel body, jaws and hinge plate, japanned malleable iron box and bench plate, polished, tempered tool steel inserted jaws, steel screw and sliding lever handle, steel spring between jaws.

Nos.	Each	Width jaws, in.	Wt. ea., lbs.
35	\$10.00	4	35
70	15.00	5	70

All above, open stock.

BENCH DRILL VISES

YANKEE



For use on bench drills or separately attached to bench.

Iron body and sliding jaw. Removable swivel jaw for holding taper work. Steel screw ½ inch diameter.

No.	990
Base length, in.	6
Base width, in.	2½
Jaws open, in.	3
Swivel jaw opens, in.	2½
Depth jaws, in.	1½
Weight each, lbs.	4
Each	\$3.50



For use on bench drill or separately attached to bench.

V shaped grooves for holding irregular work.

Nos.	991	992	993
Base length, in.	3½	4½	7¼
Base width, in.	1½	2	2½
Jaws open, in.	1½	1½	3½
Depth of jaws, in.	¾	1¼	1½
Width of jaws, in.	1½	2	2½
Height over all, in.	1½	2½	3
Length over all, in.	4½	6	8½
Weight each, lbs.	1½	3½	9½
Each	\$3.00	4.00	7.40



With Swivel Base

Same as above but with extra swivel base.

Nos.	1991	1992	1993
Base length, in.	3½	4½	7¼
Base width, in.	1½	2	2½
Jaws open, in.	1½	1½	3½
Depth of jaws, in.	¾	1¼	1½
Width of jaws, in.	1½	2	2½
Swivel base diam., in.	2½	3¼	4½
Height over all, in.	3½	4½	5½
Length over all, in.	4½	6	8½
Weight each, lbs.	2½	5½	13½
Each	\$4.00	6.00	10.00

YOST



Gray iron jaws with V shape slot for vertical work, three flanges on base for attaching to drill press table.

Nos.	Each	Width jaws, in.	Jaws open, in.	Depth opening, in.	Wt. each, lbs.
1D	\$15.00	3½	3½	1½	12½
2D	20.00	5	5½	1½	23

PIPE VISES

REED LONG JAW



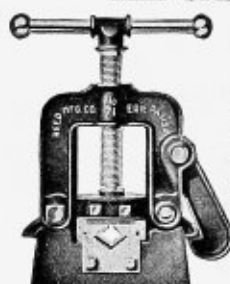
Self Locking

The long jaws eliminate tendency to mar, bend or crush pipe. Reversible lower jaws.

Malleable iron frame, milled, hardened tool steel jaws.

Nos.	Each	Ext. jaws, set	Holds pipe, in.	Wt. each, lbs.
0	\$4.25	\$1.80	¾ to 2	8
1	5.00	1.80	¾ to 2½	11
2	7.50	2.55	¾ to 3½	18
3	11.00	3.60	¾ to 4½	27

REED STANDARD



Self Locking

Malleable iron frame, jaws cut from fine tool steel.

Base has flat bottom and no apron so it can be mounted on any plain surface.

Nos.	Each	Ext. jaws, set	Holds pipe, in.	Wt. each, lbs.
7000	\$2.50	\$1.20	¾ to 1¼	3
700	3.60	1.50	¾ to 1½	5

REED CLAMP KIT



Self Locking

Malleable iron frame, tool steel jaws.

Light weight for the workers' kit.

No. 900
Holds pipe, in. ¼ to 1½
Clamp opens, in. 2
Wt. each, lbs. 7½
Each \$4.50

VULCAN CHAIN

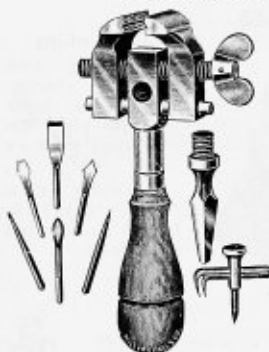


Suitable for Bench or Post

Wrought steel body, saw tempered tool steel jaws, adjusted by turning screw or engaging with rivets of the flat link chain with bosses or base.

Nos.	Each	Holds pipe, in.	Size, in.	Wt. ea., lbs.
1	\$7.00	¾ to 2	4x 5x 6	4
2	15.00	¾ to 4	6x 8x 8	10
3	27.00	¾ to 6	8x 9x11	18
4	36.00	¾ to 8	8x10x12	30

HAND VISES **MILLERS FALLS**



Detachable Handle

Handle can be screwed in vise at right angles. A bit shank can be substituted for handle when vise is to be used in a bit brace.

Tempered forged steel jaws, steel screw, body

and guide rod. All nickel plated.

Hardwood hollow handle containing chisel, screw driver countersink, bradawl, scratchawl and washer cutter.

Jaws $1\frac{1}{4}$ inch wide, open 1 inch, length over all $6\frac{1}{2}$ inches.

Each
No. 1—Wt. each 17 oz.\$5.50
One in a box.

BOKER



Forged high grade tool steel. Special quality steel laid jaws, accurately milled corrugations producing a bull dog grip.

No. 1230 $\frac{1}{2}$

Size, in.	Each	Wt. each, lbs.
4	\$1.25	11
4 $\frac{1}{2}$	1.25	15
5	1.50	18
6	2.00	29

One-half dozen in a box.

STARRETT



Angular Adjustable Handle

V grooves in stationary jaw. Case

hardened tool steel. Hardwood handle.

Opens 1 inch, depth of jaws $1\frac{1}{4}$ inch. Length $7\frac{1}{2}$ inches.

Each
No. 200—Wt. each 12 oz.\$2.15
One in a box.

PIN VISES **STARRETT**



Hollow Handle

Nos.	Each	Capacity oz.	Wt. ea., oz.
162A	\$0.65	.0 to .040	1
162B	.65	.030 to .062	1
162C	.65	.050 to .125	2
162D	.80	.115 to .187	3

Per set

No. S162—Complete set\$2.75
Six of one size in a box.

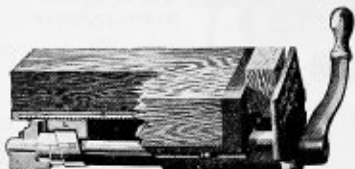
WOODWORKERS' VISES **R-W QUICK ACTING**



Slides back and forth. Phosphor bronze nut, malleable iron nut sleeve. Cold rolled steel guide guards. Gray iron jaws.

Nos.	Each	Width jaws, in.	Depth jaws, in.	Jaws open, in.	Wt. each, lbs.
430-1	\$ 9.00	7	4	10	32
430-2	10.50	10	5	12	42

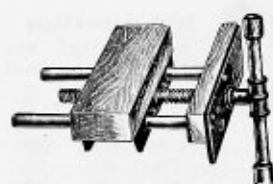
LIGHTNING GRIP QUICK-ACTING



When hand is in upright position jaws move; one-quarter turn to right tightens front jaw. Simple construction. No springs.

Nos.	Each	Width jaws, in.	Depth opens, in.	Wt. each, lbs.
17	\$12.00	9	12	47

CHRISTIANSEN STEEL SCREW



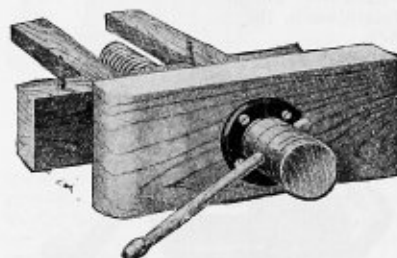
Wood Faced Jaws

Cold rolled steel screw and sliding bars.

Width of jaws 10 inches, jaw opens 9 inches.

Each
No. 0—Wt. each 20 lbs.\$6.00

CHRISTIANSEN WOOD SCREW



Hard Maple Jaw

Jaw, $12 \times 4\frac{1}{2} \times 2\frac{1}{4}$ inches
Guide, $12 \times 2\frac{1}{2} \times 1\frac{1}{4}$ inches
Slides, $17\frac{1}{2} \times 1\frac{1}{4} \times 1\frac{1}{4}$ inches
Bench screw, 21×2 inches

Each
No. 1W—Wt. each 17 lbs.\$5.25

All above, open stock.

WORK BENCHES **MANUAL TRAINING**



Hard White Northern Maple, Shellacked

Fitted with two Christiansen steel screw vises, two wood stops, $8\frac{1}{2}$ inch tool rest, width vise jaw 10 inches, jaw opens 9 inches. Cold rolled steel screw in vise, solid nut.

Height 32 inches

Top $48 \times 22 \times 1\frac{3}{4}$ inches

Working top, $13\frac{1}{2}$ inches wide

Legs, 3×2 inches

Each
No. 21—Wt. each 120 lbs.\$30.00

MANUAL TRAINING



Hard White Northern Maple Shellacked

Also used for home use, dovetail constructed drawers with wood pulls.

Holes for wood stops mortised conveniently near the front. Two wood screw vises with saw cut threads on screw.

Two spring stops are regularly furnished with each bench.

Drawers with locks and cupboard door equipped with catch.

Width vise jaws, 12 inches

Height, 32 inches

Size top, $48 \times 22 \times 1\frac{3}{4}$ inches

Over all length of top, 56 inches

Working top, $13\frac{1}{2}$ inches wide

Tool recess, $8\frac{1}{2}$ inches wide

Drawers, $18 \times 16 \times 5$ inches

Cupboard, $18\frac{1}{2} \times 18\frac{1}{4} \times 10$ inches

Each
No. 13—Wt. each 160 lbs.\$45.00

WORK BENCHES CABINET MAKERS



Hard White Northern Maple, Shellacked

Built especially substantial for cabinet makers', pattern makers' and carpenters' use. Heavily glued and well finished working tops. Equipped with two wood bench vises, 2½ inch screws, length 21 inches.

Height 34 inches.

Top 84x24x2¼ inches.

Tool recess, 8 inches wide.

Legs 2x3 inches.

No. 1A—Wt. each 180 lbs.....\$60.00

HANDY



Hard Maple Top

Heavy angle steel legs black enameled. Steel pull on drawers. Special woodworkers' vise.

Top, 48x18x1½ inches.

Height, 32 inches.

Drawers, 12½x20½x3½ inches.

Vise jaws, 5½ in. wide, opens 4½ in.

No. 501—Wt. each 70 lbs.....\$12.00

PINCH DOGS JOHNSON STEEL



For Pattern and Cabinet Makers

Forged from bar steel. Corners over legs are square. Makes easy driving.

Nos.	Per dozen	Size of steel in squares, in.	Length, in.	Wt. doz., lbs.
00	\$1.25	½	¾	¼
0	1.50	¼	1	½
1	1.50	¼	1¼	¾
2	2.00	¼	2	1½
3	2.50	½	2¾	1¾

BENCH SCREWS PENTO



Wrought Iron Screw

Wrought steel movable collar, japanned finish, wood handles, removable knobs.

Double thread on 1, 1½ and 1¾ inch screws. Single thread on 1½ inch screw.

Nos.	Per dozen	Diam. of screw, in.	Length over all, in.	Wt. per doz., lbs.
40A	\$12.00	1	16	65
40B	13.20	1½	16	80
40C	15.25	1¾	17	90
40D	21.00	1½	19½	140

Nos. 40A to 40C, one dozen; No. 40D, one-half dozen in a case.

CHRISTIENSEN



Hard Maple Wood

Saw cut V threads, wood handle, 13½x1 in., threaded knobs one end.

No.	Length, in.	Diameter, in.	Weight each, lbs.	Each
.....
.....
.....
.....

BENCH STOPS OR HOOKS STANLEY



Can be inserted in a ⅝ in. hole in top of bench. Adjustable height. Stiff springs hold it in position.

Cadmium finished.

No. 207—Length 2¾ in.; wt. per dozen 3 lbs.....\$6.00
One in a box.

STEARNS



Malleable iron head, iron body. Steel post, fits ⅝ in. hole, adjustable up to 2 in. Size body 3¾x1¾ in., head 1½ in. square.

No. 10—Wt. per dozen 11 lbs.....\$16.00
One-half dozen in a box.

BENCH STOPS OR HOOKS MILLERS FALLS



With Four Faces

A strong rigid tool easily inserted in any bench. Has four faces. Adjustable to any desired position and height by means of a set screw in center. Steel hook nickel plated finish, inner surface of socket enameled red. Edge of socket polished. Upper part of socket 2 inches and lower part 1 inch diameter.

No. 56—Wt. each 10 oz.....\$1.30

Six in a box.

SCREW CUTTERS



For cutting threads on dowels, mop handles, floor brush handles, carpet sweeper handles, etc. All sizes furnished with tap.

Nos.	Each	Cutting size, in.	Weight each, lbs.
10A	\$3.00	¾	¾
10B	3.00	½	½
10C	3.25	¾	¾
10D	3.25	¾	¾
10E	4.00	¾	¾
10F	4.50	1	1
10G	6.00	1¼	1½
10H	7.00	1½	2½

One in a package.

TOOLMAKERS' CLAMPS STARRETT PARALLEL



Case Hardened

Steel. Very useful for holding small work together in tapping, drilling, etc. Loose jaw is held tightly by spring attachments.

Nos.	Per pair	Length jaw, in.	Jaw opens, in.	Weight per pr., oz.
161AA	\$1.40	1½	¾	3
161A	1.70	2	1¼	6
161B	2.00	2½	1¾	11
161C	2.40	3	2¼	18
161D	3.00	4	2¾	35

One pair in a box.

TOOLMAKERS' CLAMPS

STARRETT BLOCK



Case
Hardened
Drop
Forged
Steel

These clamps have take up blocks to slip on and off end of screw.

Will hold work square and parallel for laying out surface plates, fitting or drilling. Has hole in block to insert screw so that block may be fastened to bench and used as a small vise.

No. 160		Size opening, in.
Size, in.	Per pair	
2	\$2.50	2
3	3.00	3

One pair in a box.

DRILL BLOCKS AND CLAMPS

STARRETT



Clamp will hold a round piece up to 1 1/2 inch diameter firmly in the groove of the blocks for prick punching, drilling or laying out a series of holes before and while being drilled. Size of drill blocks 1 1/2 x 2 inches.



Per pair	
No. 268A—Drill blocks	\$1.25
No. 268B—Clamp only.....	Each .60
No. 268C—Set complete.....	Per set 1.85

One set in a box.

BROWN & SHARPE

Hardened Tool Steel

Sides ground parallel and the V grooves carefully ground central.

For laying out work in connection with a surface plate, angle iron, etc.

Size of drill blocks, 1 1/4 x 1 1/4 x 1 1/2 inches, holds 1 inch diameter.

Per set	
No. 750A—Set 2 blocks, 2 clamps..	\$6.75

One set in a box.

MACHINISTS' CLAMPS

BILLINGS & SPENCER



Drop forged steel "Duro" black rust-proof finish.

Model AY

Size Nos.	Each	Opens, in.	Depth, in.	Wt. each, lbs.
1	\$1.55	1 1/4	1	3/8
2	3.60	2 1/4	1 1/2	2
3	5.10	3 1/4	1 3/4	5
4	6.65	4 1/2	2 1/8	7 1/2
5	8.20	6 1/2	3 1/8	12 1/2

Open stock.

LATHE DOGS

BILLINGS & SPENCER



Safety Screw

Drop forged steel.
"Duro" black rust-proof finish.

Size Nos.	Each	Extra wrench, each	Size, in.	Wt. each, oz.
1	\$1.00	\$0.12	3/8	3
2	1.10	.14	1/2	5
3	1.20	.16	3/4	9 1/4
4	1.40	.16	1	14
5	1.70	.20	1 1/4	24
6	2.00	.24	1 1/2	32

Open stock.



Malleable Iron

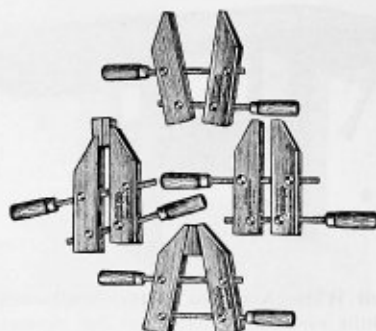
Made from extra high grade malleable iron castings, provided with steel set screw with hardened point.

Size, in.	Each	Wt. each, lbs.	Size, in.	Each	Wt. each, lbs.
3/8	\$0.40	1/4	1 1/8	\$0.80	1
1/2	.50	3/8	1 1/4	.80	1 1/2
3/4	.60	1/2	1 3/8	.95	1 3/4
1	.60	5/8	1 1/2	.95	2
1 1/4	.70	3/4	1 3/4	1.10	2 1/2
1 1/2	.70	7/8	2	1.20	3 1/2

Open stock.

HAND SCREWS

JORGENSEN PEERLESS



Adjustable

Hard maple jaws, oil finish; spindles and nuts made of special analysis steel.

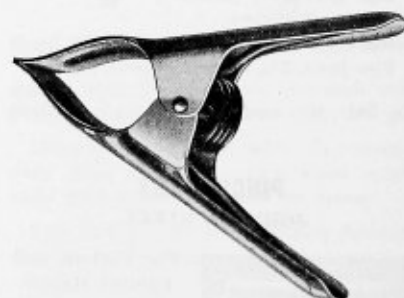
Nearly twice as fast as any other hand screw made, its spindles being equipped with a right and left hand thread, the jaws can be adjusted to any angle, thus doing away with the necessity of squaring up irregular surfaces.

Nos.	Per doz.	Jaws open, in.	Lgth. of jaws, in.	Wt. per dozen, lbs.
5/0	\$15.00	2	4	5
4/0	16.20	2 1/2	5	6 1/2
3/0	18.00	3	6	12 1/2
2/0	19.20	3 1/2	7	15 1/2
0	21.00	4 1/2	8	23
1	24.00	6	10	30
2	27.00	8 1/2	12	50
3	30.00	10	14	58
4	36.00	12	16	86
5	42.00	14	18	100
6	48.00	14	20	112
7	60.00	17	24	130

One-half dozen in a carton.

HANDY CLAMPS

K-V



Stamped Steel

Oil tempered springs. Snaps on instantly and holds with a solid grip leaving both hands free to work with. Used by all mechanics. Copper plated finish.

Nos.	Per doz.	Length, in.	Jaws open, in.	Wt. per dozen, lbs.
1	\$4.08	4	1	2 1/4
2	5.04	6	1 1/2	3
3	10.08	9	2 3/4	9

One dozen in a box.

CARRIAGE MAKERS' CLAMPS

HARGRAVE



Standard

Malleable iron frame shaped to greatest strength for weight.

Steel screw, heat treatment prevents bending and battering of threads. Acme thread.

Opening, in.	Per doz.	Depth from center of screw, in.	Wt. per doz. lbs.	Dozen in a carton
2½	\$ 9.00	1¾	10	3
3	10.00	1¾	12	3
4	12.00	2¼	19	3
5	15.00	2½	24	2
6	18.00	2¾	30	2
7	22.00	3	38	1
8	28.00	3¼	45	1
10	36.00	3¾	72	½
12	46.00	3¾	96	½

MARK, QUICK ACTING



Instantly adjustable. Malleable iron frame, steel screw with deep cut buttress thread. Press levers on side and push screw into position.

Nos.	Per doz.	Opening in.	Depth of throat, in.	Wt. per doz., lbs.
203	\$18.00	3	1¾	14
204	21.00	4	1¾	18
205	24.00	5	2¼	20
206	30.00	6	3	32

One-half dozen in a box.

BODY CLAMPS

HARGRAVE



Malleable frame, steel screws, for auto body work, etc.

No. 603

Opening, in.	Per doz.	Depth, in.	Wt. per doz., lbs.
4	\$15.00	2½	24
6	22.00	3¾	38½
8	34.00	3¾	53½
10	42.00	4	78

Open stock.

CLAMPS

HARGRAVE JUNIOR

Especially useful on jig pattern and instrument work, light gluing, such as airplane wire and propeller shield.

Button tip, knurled thumb nut. Malleable iron frame red enameled, steel screw.

No.	557
Opening, in.	1
Depth, in.	½
Wt. dozen, lbs.	1
Per dozen	\$1.80

One dozen in a box.



Button tip, knurled thumb nut. Malleable iron frame, red enameled, steel screw.

Nos.	Per doz.	Opening, in.	Depth, in.	Wt. per dozen, lbs.
558	\$1.80	1	1½	1¾
571	2.80	1½	1½	2¾

One dozen in a box.



Ball and socket tip. Malleable iron frame, red enameled. Steel screw.

Nos.	Per doz.	Opening, in.	Depth, in.	Wt. per dozen, lbs.
549	\$3.60	2	1¼	4¾
550	4.50	3	1¾	6
551	6.30	4	1¾	8

One-half dozen in a box.



Ball and socket tip. Malleable iron frame red enameled. Steel screw.

No.	572
Opening, in.	2½
Depth, in.	2½
Wt. per doz., lbs.	8
Per dozen	\$6.30

One-half dozen in a box.

QUILT FRAME



Cast iron frame and screw. Japanned finish.

Nos.	Per doz.	Opens, in.	Wt. per box, lbs.	Doz. in a box
32	\$1.80	1¾	8½	2
33	2.40	2¾	4	1

CLAMPS

HARGRAVE



Improved "T" Steel Bar

Slide cannot slip or bind; tempered steel dog engages notches on bar.

High carbon manganese steel bar, 1½x 5/8x 1/8 inch. Slide, tip, frame, crank, malleable iron. 5/8 inch diameter screw.

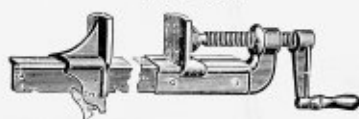
No. 640

Opening, feet	Per pair	Wt. per pair, lbs.
2	\$ 7.60	13½
2½	7.80	14¾
3	8.00	16
4	9.00	18½
5	10.00	21
6	11.00	23½

Note—A pair consists of two clamps.

Open stock.

STEARNS



"T" Steel Bar

Slide works up or down on steel bar and engages in notches 1½ inches apart on back of bar.

Steel bar, 1½x1½x1/8 inches, Acme thread screw. 5/8 inch diameter. Clamping surface, 1½x1½ inches. Malleable iron fittings.

Nos.	Per pair	Opening, feet	Wt. per pair, lbs.
101	\$ 8.50	1	12
102	9.00	2	14
103	9.50	3	16
104	10.50	4	18
105	12.00	5	20
106	13.50	6	23

Note—A pair consists of two clamps.

CLAMP FIXTURES

HARGRAVE



Without Bar

Malleable iron frame, tip and slide, heat treated steel screw, ½ inch diameter, deep cut Acme thread, with wheel handle. Fits bar 1½x2¼ inches.

No. 615—Wt. per dozen 48 lbs.\$15.00

CLAMP FIXTURES STEARNS UNIVERSAL



Fixtures Only

Consists of two sections only. Head piece and sliding jaw or tail piece.

Malleable iron, $\frac{5}{8}$ inch diameter steel screw. Acme thread. May be applied to wood bar, $1\frac{1}{2}$ inch thick x 2 inches or more in width.

Per dozen pairs
No. 32—Wt. per dozen prs. 64 lbs. ..\$36.00

Note—A pair consists of head and tail piece.

FLOORING CLAMPS STEARNS



Malleable Iron

A most useful and powerful device in laying floors.

Made of best grade malleable iron.

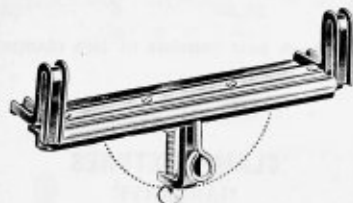
Length handle 14 inches. Black japanned finish.

Per dozen

No. 1—Wt. per dozen 30 lbs.\$12.00

Open stock.

SAW CLAMPS OR VISES STEARNS STEEL FOLDING



With and Without Rubber Faced Jaw

Black japanned, baked-on, with nickel plated trimmings. Back jaw faced with rubber, preventing vibration and noise. Eccentric locking bar.

Length jaws $10\frac{1}{2}$ inches, length over all 12 inches.

Nos.	Per dozen	Jaws	Wt. per doz., lbs.
670	\$15.00	Rubber	30
570	13.50	Plain	30

One in a box.

SAW CLAMPS OR VISES STEARNS



Malleable Iron

Made to fasten to side of bench with screws.

Black japanned finish. Jaws $9\frac{1}{2}$ inches wide.

Height 8 inches.

Per dozen
No. 0—Wt. per doz. 35 lbs. \$12.00
Open stock.



Malleable Iron

May be readily adjusted relative to bench or adjusted to light while filing.

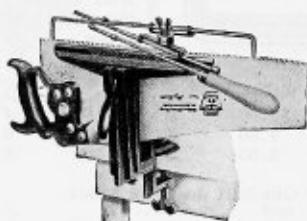
Black japanned finish.

Jaws $9\frac{1}{2}$ inches wide, height 10 inches.

Per dozen
No. 3—Wt. per doz. 50 lbs.\$18.00

Open stock.

SAW FILING GUIDES DISSTON



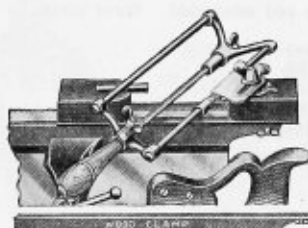
With Clamp, Guide and File

Malleable iron clamp and file attachment, steel wire guide. Japanned finish frame. Jaws $12\frac{1}{2}$ inches, guide frame 16 inches.

Each
No. D3—Wt. each 11 lbs.\$7.30

One in a box.

ATKINS



Used with a wood clamp in bench vise or saw clamp. By following the directions packed with each file, the most inexperienced person can file a saw correctly, bringing each tooth to the same bevel and pitch.

Each
No. 8—Wt. each 4 lbs.\$4.50

One in a box.

SAW JOINTERS DISSTON



Malleable Iron

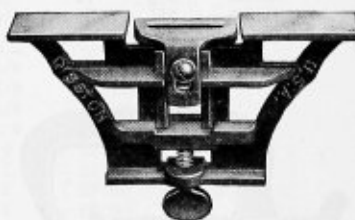
For dressing teeth to uniform height before resharpening or resetting saw.

Made of malleable iron, fitted with a file of the correct cut to joint saw; the file can be replaced readily. Size $2\frac{1}{4}$ x 5 inches.

Per dozen
No. 10—Wt. per doz. 8 lbs.\$15.00

One-half dozen in a box.

CROSS CUT SAW TOOLS DISSTON UNIVERSAL



Tool includes a jointer, raker tooth gage, setting block or anvil, Keystone set gage and side dresser.

Made of light metal, $4\frac{1}{8}$ inches long, $2\frac{1}{4}$ inches high, plates $\frac{3}{4}$ inch wide.

Full instructions with each saw.

Per dozen
No. 20—Wt. per dozen 15 lbs.\$14.10

One in a box.

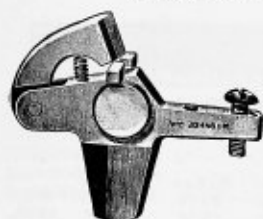
SAW SWAGES DISSTON—CONQUEROR



Hardened Steel

Nos.	Each	Lth., in.	For saws	Wt. ea., oz.
1	\$6.80	5	Circular 6 to 9 ga.	19
2	5.50	$3\frac{3}{4}$	Circular Mill not over 9 ga.	8
3	4.28	$2\frac{3}{8}$	Circular band not over 15 ga.	3
4	5.50	$4\frac{3}{8}$	Band 13 to 16 ga.	9

SAW SETS
WM. JOHNSON



Aiken Pattern
Made of tempered cast steel.
Bed plate that saw rests on is hardened steel.
Set screw for angle gage.

No. 87—Wt. per dozen 5¼ lbs.\$8.50

STEARNS



For Hand, Band and Jig Saws

Malleable iron frame and handles, hardened steel anvil and plunger, tempered steel springs; watermill finish.

Takes saws widest down to ½ inch. Length 6½ inches.

No. 0—Wt. per doz. 7 lbs.\$6.50



For Hand Saws

Malleable iron frame and handle, hardened anvil, tool steel plunger, tempered steel spring.

Revolving anvil has required bevel and length for saw teeth from 4 to 16 to the inch. Polished nickel plated finish.

Length 6¾ inches.

No. 395—Wt. per doz. 9¼ lbs.\$18.00



Morrill Pattern
For Cross Cut and Circular

Cast steel frame and handle hardened steel anvil and plunger tempered steel spring. Polished finish.

Has square plunger for "M" champion or other double tooth cross cut saws.

Length 9½ inches.

No. 204—Wt. per dozen 21 lbs.\$18.00

All above, one-half dozen in a box.

SAW SETS
STEARNS



Morrill Pattern
Timber and Board Saws

Malleable iron handle and frame. Hardened steel plunger and anvil. Tempered steel springs. Polished finish.

For timber and board saws 6 to 14 gauge. Length 15 inches.

No. 106—Wt. per dozen 40 lbs.\$42.00

STANLEY

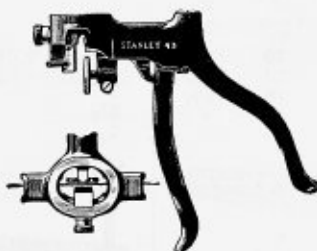


Pistol Grip
for Back and Panel Saws

Malleable iron frame and handle, anvil and plunger hardened tool steel. Black finish.

Anvil is graduated so that same adjustment can be easily obtained for duplicate work.

No. 42—Wt. each 1 lb.\$2.00



Pistol Grip for Cross Cut and Rip Saws

Same construction as No. 42 above. Black finish.

No. 43—Wt. each 1½ lbs.\$4.50

DEFIANCE



Pistol Grip
for Cross Cut and Rip Saws

Gray iron handle and frame. Steel anvil.

A graduated plate and a graduated wheel give correct setting for 5 to 11 point saws. Red and green finish.

No. 432—Wt. each 1 lb.\$1.00

All above, one in a box.

SAW SETS
DEFIANCE



Plier Handle
For Cross Cut and Rip Saws

Gray iron casting handle and frame. Steel anvil.

A graduated plate and anvil gives correct setting for 5 to 11 tooth saws. Blue enameled finish. Length 6½ inches.

No. 422—Wt. each 1 lb.\$0.75

One in a box.

TAINTORS



For Cross Cut and Rip Saws

Stamped steel handle and frame, hardened steel plunger and anvil. Anvil regulated by hardened set screw. Anvil has ten sides and faces which are of three lengths placed in lettered divisions: F for fine, M for medium, and C for coarse teeth. For very fine adjustment of setting a washer is used. Polished finish. Length 6 inches.

No. 7—Wt. each 6¼ oz.\$1.50

One-half dozen in a box.

DISSTON TRIUMPH



For Hand, Web and Narrow Band Saws

Malleable iron handle and head. Hardened steel plunger and anvil. For saws 16 gauge and thinner, 10 points to the inch and coarser. Black finish, length 7¼ inches.

No. 28—Wt. per dozen 9¼ lbs.\$20.70

One-half dozen in a box.

GROSS CUT SAWS

SIMONDS

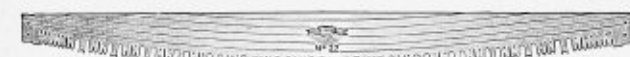


Crescent Ground

Two cutting teeth to each raker tooth.

No. 13

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Number gauges taper	Gauge on teeth No.	Gauge on back No.	Wt. each, lbs.
5	\$9.00	6½	3¼	5	14	20	4½
5½	10.00	6½	3¼	6	14	20	5½
6	12.00	7	3¼	6	14	20	6½
6½	13.00	7½	3¼	6	14	20	7½



Lance Tooth, Crescent Ground

No. 22

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Number gauges taper	Gauge on teeth No.	Gauge on back No.	Wt. each, lbs.
5	\$9.00	6½	3¼	5	15	20	4½
5½	10.00	6½	3¼	6	14	20	5½
6	12.00	7	3¼	6	14	20	6½
6½	13.00	7½	3¼	6	14	20	7½



Crescent Ground

Two cutting teeth to each raker tooth.

No. 113

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Number gauges taper	Gauge on teeth No.	Gauge on back No.	Wt. each, lbs.
5	\$9.00	5¼	3¾	5	15	20	4½
5½	10.00	5½	3¾	5	14	20	4¾
6	12.00	5¾	3¾	5	14	19	5½

SIMONDS NARROW FELLING



Crescent Ground

Two coarse teeth to each raker tooth.

No. 315

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Number gauges taper	Gauge on teeth No.	Gauge on back No.	Wt. each, lbs.
5	\$9.00	4¾	3¼	3	14	17	4½
5½	10.00	4¾	3¼	3	14	17	4¾
6	12.00	4½	3¼	3	14	17	5½

DISSTON



Lance Perforated, Crucible Steel

Four cutting teeth to one raker tooth.

No. 114

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Ga. at tooth edge No.	Gauge back ends No.	Gauge back center No.	Wt. each, lbs.
4½	\$6.00	5¼	2¾	15	17	19	5
5	6.60	5½	2¾	15	17	19	5½
5½	7.20	5¾	3	15	16	18	6¼
6	7.80	6	3	15	16	18	6¾

GROSS CUT SAWS

DISSTON



Champion Tooth, Crucible Steel

Two cutting teeth to one raker tooth.

No. 152

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Ga. at tooth edge No.	Gauge back ends No.	Gauge back center No.	Wt. each, lbs.
4	\$3.90	5½	2¾	15	15	17	3¾
4½	4.40	5¾	2¾	15	15	17	4½
5	5.00	5½	2¾	15	15	17	5½
5½	5.50	5¾	3	14	14	16	5¾
6	5.90	6	3	14	14	16	7
6½	6.40	6½	3¼	14	14	16	8¼

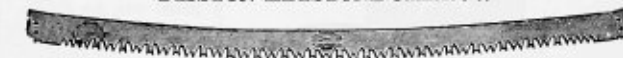


Tenon Tooth, Crucible Steel

No. 162

Lgth., ft.	Without handles, each	Width at center, inch	Width at ends, inch	Ga. at tooth edge No.	Gauge back ends No.	Gauge back center No.	Wt. each, lbs.
4	\$3.90	5½	2¾	15	15	17	3¾
4½	4.40	5¾	2¾	15	15	17	4
5	5.00	5½	2¾	15	15	17	5½
5½	5.50	5¾	3	14	14	16	6½
6	5.90	6	3	14	14	16	7½

DISSTON KEYSTONE NARROW



Champion Tooth

Two cutting teeth to one raker tooth.

No. K854

Length, feet	Without handles, each	Width, in.	Wt. ea., lbs.
4½	\$2.10	3¼	3¼
5	2.30	3¼	3½
5½	2.50	3¼	4
6	2.80	3¼	4½

DISSTON ONE MAN



Champion Tooth

Crucible steel.

Two cutting teeth to one raker tooth.

Fine teeth for starting. Hardwood handle and supplementary handle.

No. 554

Length blade, ft.	Each	Width at butt, in.	Width at point, in.	Wt. ea., lbs.
3	\$3.60	6¾	2½	3¼
3½	4.20	7	2¾	4
4	4.70	7¼	2½	4¾
4½	5.30	7½	2¾	5½
5	5.90	7¾	2¾	6½

AMERICAN EAGLE, ONE MAN



Champion Tooth

High carbon steel.

Two cutting teeth to one raker tooth. With supplementary handle.

No. E2

Length blade, ft.	Each	Width at butt, in.	Width at point, in.	Wt. ea., lbs.
2½	\$2.25	6	2	2½
3	2.50	6¼	2	3¼
3½	3.00	6¾	2	4
4	3.50	6¾	2	4¾

HAND SAWS **DISSTON**



Lightweight Pattern, Straight Back

Made of Disston steel, hardened and tempered. High polish striped back. Applewood handle. Approximate width at butt, 6½ inches; at point 1½ inches.

No. D12				
Length, in.	Per dozen	Kind	Teeth to inch	Wt. per doz., lbs.
24	\$63.60	Hand	7, 8, 9, 10	18
26	63.60	Hand	7, 8, 9, 10	22
26	63.60	Rip	5½, 6	22



Lightweight Pattern, Skew Back

Made of Disston steel, hardened and tempered, high polish, striped back. Applewood handle, approximate width at butt, 6½ inches; at point 1½ inches.

No. D8				
Length, in.	Per dozen	Kind	Teeth to inch	Wt. per doz., lbs.
24	\$41.70	Hand	7, 8, 9, 10	17
26	41.70	Hand	7, 8, 9, 10	21
26	41.70	Rip	5½, 6	21



Lightweight Pattern, Straight Back

Made of Disston steel, hardened and tempered. High polish, striped back. Applewood handle. Approximate width at butt, 6½ inches, at point 1½ inches.

No. D23				
Length, in.	Per dozen	Kind	Teeth to inch	Wt. per doz., lbs.
24	\$46.50	Hand	7, 8, 9, 10	18
26	46.50	Hand	7, 8, 9, 10	21
26	46.50	Rip	5½, 6	21



Lightweight Pattern, Straight Back

Made of Disston steel, hardened and tempered, beechwood handle. Approximate width at butt, 6½ inches, at point 1½ inches.

D7 Lightweight Pattern				
Length, in.	Per dozen	Kind	Teeth to inch	Wt. per doz., lbs.
26	\$37.50	Hand	6, 7, 8, 9, 10	25
26	37.50	Rip	5½, 6	25

D7 Regular Pattern				
Length, in.	Per dozen	Kind	Teeth to inch	Wt. per doz., lbs.
20	\$32.70	Hand	8, 10, 12	16
22	32.70	Hand	8, 10, 12	18
24	37.50	Hand	7, 8, 9, 10	20
26	37.50	Hand	6, 7, 8, 9, 10	25
22	32.70	Rip	7	18
24	37.50	Rip	6, 7	20
26	37.50	Rip	5, 5½, 6	25

All above, one-third dozen in a box.

HAND SAWS **DISSTON, KEYSTONE**



Leader, Straight Back **Cross Cut Only**

A leader in the low price field of saws. Made of Disston steel, tempered, hardwood handle.

No.		K1
Length blade, in.	26	
Points to inch	8	
Wt. per dozen, lbs.	21	
Per dozen	\$11.40	

One-half dozen in a box.



Speedster, Skew Back **Cross Cut Only**

Made of Disston steel, tempered. Natural finish weatherproof handles. Comfortable grip.

No.		K2
Length blade, in.	26	
Points to inch	8	
Wt. per dozen, lbs.	21	
Per dozen	\$13.20	

One-half dozen in a box.



Pace Maker, Skew Back **Cross Cut Only**

Made of Disston steel, tempered mahogany finish. Carved handle, comfortable grip.

No.		K3
Length blade, in.	26	
Points to inch	7 and 8	
Wt. per dozen, lbs.	22	
Per dozen	\$16.20	

One-third dozen in a box.



Air Master, Skew Back **Cross Cut Only**

Made of Disston steel, tempered thin back, teeth bevel filed. Mahogany finish full carved handle, four nickel plated screws, one a medallion.

No.		K4
Length blade, in.	26	
Points to inch	7 and 8	
Wt. per dozen, lbs.	22	
Per dozen	\$19.80	

One-third dozen in a box.

HAND SAWS **DISSTON, KEYSTONE**



Defender—Skew Back **Cross Cut Only**

Made of Disston steel, tempered, finely made, extra high finish thin back, bevel teeth. Gun metal finish carved handle. Nickel plated screws.

No. K5			
Length blade, in.	Per dozen	Teeth to inch	Wt. per dozen, lbs.
16	\$13.20	10	9
20	16.80	9	13
26	24.00	7 and 8	22

One-third dozen in a box.



Challenger Lightweight Pattern **Cross Cut Only**

Made of Disston steel, taper ground, extra high finish, teeth bevel fitted full carved, hardwood handle. Mahogany color, nickel plated screws.

No.		K6½
Length blade, in.	26	
Points to inch	7, 8, 9, 10	
Weight per dozen, lbs.	22	
Per dozen	\$27.00	

One-third dozen in a box.

FLOORING SAWS **DISSTON**



Adjustable Handle

Made of Disston steel, cuts through section of floor side walls, etc. 3½ inches wide at butt. Carved reversible handle, nickel plated handle bolt and wing nut.

No.		D19
Length blade, in.	18	
Points to inch	9	
Wt. per dozen, lbs.	12	
Per dozen	\$36.00	

One-third dozen in a box.

DOCKING SAWS **DISSTON**



Made of Disston steel for rough and heavy work, 4½ points to inch, iron handle. Cadmium finish.

No.		196
Length blade, in.	30	
Width at butt, in.	6½	
Width at point, in.	2½	
Gauge at tooth edge, No.	18	
Gauge at back, No.	21	
Wt. per dozen, lbs.	23	
Per dozen	\$36.00	

One-sixth dozen in a box.

BACK SAWS DISSTON



Made of Disston steel, tempered. Extra heavy bright steel back cuts cross grain, rip or mitre. Beechwood handle.

No. 4

Lgth. blade, in.	Per doz.	Width blade, in.	Gauge No.	Points to in.	Wt. per dozen, lbs.
10	\$30.00	2½	22	15	13
12	33.00	3	22	14	18
14	36.00	3½	22	13	22
16	42.00	3¾	21	12	26

One-half dozen in a box.



Mitre

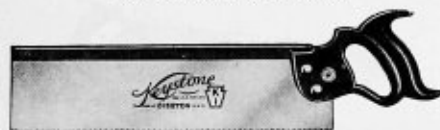
Made of Disston steel, tempered, heavy steel back, 11 points to the inch. Beechwood handle.

No. 4M

Lgth. blade, in.	Per doz.	Width blade, in.	Gauge No.	Points to in.	Wt. per dozen, lbs.
20	\$60.00	4	36¾		36¾
22	64.40	4	40½		40½
24	69.70	4	45¾		45¾
26	74.90	4	48		48
28	87.30	5	57½		57½

One-half dozen in a box.

DISSTON, KEYSTONE



Made from special steel, brass plated stiff back, teeth carefully beveled, filed and set. Hardwood handle.

No. K1

Lgth. blade, in.	Per doz.	Width blade, in.	Gauge No.	Points to in.	Wt. per dozen, lbs.
10	\$18.00	2¼	22	14	10
12	21.00	2¾	22	13	12¾
14	24.00	3¼	21	12	15¾

One-third dozen in a box.

CABINET SAWS DISSTON



Made of Disston steel, tempered, one edge, 10 teeth to inch for ripping, other edge, 15 teeth to inch for cross cutting. Cherry handle with bolt and wing nut.

No.	Length blade, in.	Width blade, in.	Wt. per dozen, lbs.
80	12	3½	12
12	12	3½	12
12	12	3½	12

One-third dozen in a box.

DOVETAIL SAWS DISSTON



Made of Disston steel, 26 gauge, 17 points to the inch, brass plated back, hardwood handle. Brass ferrule.

No. 68

Lgth. blade, in.	Per doz.	Width blade, in.	Wt. per dozen, lbs.
6	\$18.40	1½	5½
8	20.70	1½	6

One-sixth dozen in a box.

PATTERNMAKERS SAWS DISSTON



Made of Disston steel, tempered teeth are shaped to make a fine exact cut, 15 points to the inch. Applewood open handle, brass screws.

No.	Length blade, in.	Width blade, in.	Wt. per dozen, lbs.
1	7½	1¼	4½
1	7½	1¼	4½

Per dozen \$16.50

One-sixth dozen in a box.

STAIR BUILDERS SAWS DISSTON



Adjustable for Various Depths of Cut

Made of Disston steel, tempered. Adjustable to cut various depths up to ¾ inch, 8 points to the inch. Handle and frame made of hardwood.

No.	Length blade, in.	Width blade, in.	Wt. per dozen, lbs.
6	6	1¾	9
6	6	1¾	9

Per dozen \$14.50

One-half dozen in a box.

BEAD SAWS DISSTON



For scoring windows or frames for inserting metal or weather strip.

Made of Disston steel 1½ inch wide at handle, 5 teeth at point of blade, ¼ inch spacing. Hardwood handle.

No.	Length blade, in.	Wt. per dozen, lbs.
1	10	7
1	10	7

Per dozen \$22.40

HACK OR PLUMBER SAWS OHLEN-BISHOP



For sawing metal, nails, wood, etc.

Special tough steel blade, toothed and tempered to suit purpose. Removable carved applewood handle, nickel plated trimmings.

No.	Length blade, in.	Width blade at butt, in.	Width blade at point, in.	Wt. per dozen, lbs.
78	20	4½	1½	13
13	13			

Per dozen \$30.00

One-third dozen in a box.

NESTS OF SAWS OHLEN-BISHOP



Made of tempered steel, interchangeable hardwood handle.

Set of blades as follows:

One 12 inch back saw.
One 16 inch panel saw.
One 12 inch metal cutting compass saw.

Per dozen nests
No. 18-3—Wt. per dozen sets, 22 lbs. \$18.00

Three twelfths dozen nests in a box.

DISSTON PLUMBERS



A handy combination of saws used by plumbers for rough usage. Made of Disston steel, tempered. Beechwood handle.

Set of blades as follows:

10 inch keyhole saw blade, 10 points.
14 inch compass saw blade, 8 points.
18 inch plumbers' saw blade, 12 points.

Per dozen nests
No. 60—Wt. per doz. nests 11 lbs. \$27.00

One-quarter dozen nests in a box.

EXTRA PARTS

	Per dozen
10 in. keyhole blade	\$ 4.00
14 in. compass blade	6.00
16 in. pruning blade	9.00
14 in. metal cutting blade	8.00
18 in. metal cutting blade	11.00

NESTS OF SAWS

DISSTON



Made of Disston steel, tempered, beechwood handles with bolt and wing nut.

Nest of blades as follows:

- 16 in. Pruning saw blade, 8 points
- 14 in. Compass saw blade, 8 points
- 10 in. Keyhole saw blade, 10 points

Per dozen nests

No. 3—Wt. per dozen nests 10 lbs. \$25.00

One-quarter dozen nests in a box.

Extra Parts

Per dozen

- 10 in. Keyhole blades\$4.00
- 14 in. Compass blades 6.00
- 16 in. Pruning blades 9.00

DISSTON KEYSTONE



Made of Disston steel, hardwood handle, weatherproof finish. Bolt and wing nut.

Nest of blades as follows:

- 10 in. Keyhole saw blade, 9 points
- 14 in. Compass saw blade, 8 points
- 16 in. Pruning saw blade, 8 points

Per dozen nests

No. K300—Wt. per dozen nests 9½ lbs.\$15.60

One-third dozen nests in a box.

KEYHOLE SAWS

DISSTON



Made of Disston steel, tempered, thin back, tapering to a sharp point. 10 points to the inch.

Beechwood handle.

No. 15

Length blade, in.	Per dozen	Wt. per dozen, lbs.
10	\$7.00	3½
12	7.30	3¾

One-half dozen in a box.



Adjustable Blade

Made of Disston steel, tempered. Malleable iron handle or pad. Cadmium plated. 10 points to the inch, blade can be used as a screw driver by reversing in handle. Blade 7 in., pad 4¼ in. long.

Nos.	Item	Wt. per doz., lbs.	Per dozen
5	Complete saw	2½	\$5.30
5B	Blade only	½	3.00
5H	Handle only	2¼	2.30

One dozen complete saws in a box.

COMPASS SAWS

DISSTON



Interchangeable

Made of Disston steel, tempered, polished, taper ground. Thin back, special shaped teeth, 8 points to the inch. Beechwood handle with bolt and wing nut takes all sizes of blades.

No. 4

Length blade, in.	Per dozen	Blades per dozen	Weight per dozen saws, lbs.
10	\$10.80	\$4.80	5½
12	11.40	5.40	5¾
14	12.00	6.00	6¼
16	12.60	6.60	6½

One-half dozen in a box.



Made of Disston steel, tempered, polished, taper ground. Thin back, tapering to a sharp point. 8 points to the inch.

Applewood handle. Weatherproof finish.

No. 2

Length blade, in.	Per dozen	Weight per dozen saws, lbs.
10	\$10.20	5½
12	10.80	5¾
14	11.40	6¼
16	12.00	6½

One-half dozen in a box.

DISSTON KEYSTONE



Interchangeable

Made of special steel, hardened and tempered, 8 points to the inch.

Hardwood handle, bolt with wing nut takes all sizes of blades.

No. K304

Length blade, in.	Per dozen	Weight per dozen saws, lbs.
12	\$6.50	5
14	7.00	6

One-quarter dozen in a box.



Made of special steel, tempered and hardened, 8 points to the inch. Hardwood handle.

No. K302

Length blade, in.	Per dozen	Wt. per dozen, lbs.
12	\$6.50	5
14	7.00	6

One-half dozen in a box.

COPING SAWS



Adjustable Round edge heavy steel frame.

Long threaded adjustment stud. Length

frame 6½ inches, depth 4½ inches. Red finish hardwood handle. Nickel plated frame and ferrule.

Per dozen

No. 19—Wt. per dozen 7 lbs.\$6.00

One dozen in a box.

EXTRA BLADES FOR ABOVE SAWS

Pin ends. Length 6½ inches, ½ inch wide.

Per dozen

No. 60—Wt. per dozen ½ oz.\$0.40

One dozen in a bundle, one gross in a box.

Steel Frame



Made with sufficient spring to keep blade stretched tightly. Length 6 inches, depth 4 inches.

Per dozen

No. 100—Wt. per doz. 4½ lbs.\$4.80

One dozen in a box, with blades.

EXTRA BLADES FOR ABOVE SAWS

Loop ends, length 6 inches.

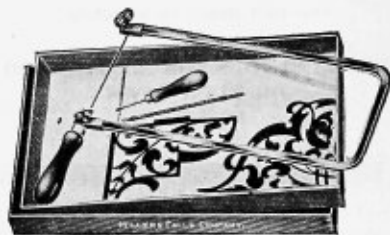
Per gross

No. 50—Wt. per gross 4 oz.\$3.60

One gross in a box.

FRET SAW SETS

MILLERS FALLS



Spring steel frame, enameled wood handle. Set consists of saw frame, 12 blades, 1 awl, one sheet impression paper and 3 sheet designs. Saw 12 inches deep, 5 in. wide.

Per set

No. 2—Wt. per set 17 oz.\$1.80

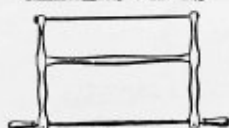
One set in a box.

SCROLL SAW BLADES

Length 5 inches.

Nos.	Per dozen	Per gross	Thickness and width	Teeth per in.
70028-21J	\$0.40	\$3.00	.007x.028	21
10025-21J	.40	3.00	.010x.025	21
10035-21J	.40	3.00	.010x.035	21
16054-30J	.40	3.00	.016x.054	30
16054-21J	.40	3.00	.016x.054	21
20072-15J	.40	3.00	.020x.072	15
20085-12J	.40	3.00	.020x.085	12
20125-20J	.50	4.00	.020x.125	20
20125-15J	.50	4.00	.020x.125	15
20125-10J	.50	4.00	.020x.125	10
28187-16J	.90	10.00	.028x.187	10
28250-20J	1.00	11.25	.028x.250	20
28250-17J	1.00	11.25	.028x.250	7

TURNING SAWS MILLERS FALLS



Birchwood frame, stained handles, steel blade held by steel pins, strained by thumb nut, friction and handle regulated by screws, steel tension rod, depth $7\frac{1}{4}$ in. Complete with one blade $\frac{1}{8}$ in. wide.

Length blade, inches	No. 357		Wt. saw ea., lbs.
	Each	Blades per dozen	
14	\$1.85	\$3.85	1 $\frac{3}{4}$
18	1.95	4.85	1 $\frac{3}{4}$

One in a box.

WOOD OR BUCK SAWS DISSTON



Selected hardwood frame, straight single brace stretcher, natural finish, plain clipper rod, straight breasted bright plain tooth blade. 30 inches long, $1\frac{1}{4}$ inches wide.

No. 104—Wt. per doz. 46 lbs.\$14.80
One-half dozen in a carton.

EXTRA BLADES FOR ABOVE WOOD OR BUCK SAWS DISSTON



Plain Teeth

Made of special steel, straight breast, $4\frac{1}{2}$ points to the inch. 30 inches long, $1\frac{1}{4}$ inch wide.

No. 5—Wt. per doz. 5 lbs.\$4.40
One dozen in a bundle.

BUTCHERS SAW BLADES



In Coils

Made from Disston steel, hardened and tempered, set and sharpened. 11 points to the inch. Width $\frac{3}{4}$ inch.

No. 50—Wt. per coil, $1\frac{1}{4}$ lbs.\$0.20
Twenty-five feet in a coil.

BUTCHERS SAWS DISSTON



Frame made of Disston steel $\frac{3}{4} \times \frac{1}{4}$ inch, rounded edges.

Blade made of Disston steel. $\frac{3}{4}$ inch wide, 11 points to the inch. Rigid pin in each end, wing nut blade adjustment.

Cherry stained hardwood handle.

Length blade, in.	No. 70	
	Per dozen	Wt. per doz., lbs.
18	\$24.80	26
20	26.40	27 $\frac{1}{2}$
22	28.00	29
24	29.40	31

One-third dozen in a box.

KITCHEN SAWS DISSTON



Bright finish round steel frame. Steel blade, 16 inches long. 13 points to the inch.

Hardwood handle.

No. 18—Wt. per dozen 10 $\frac{1}{4}$ lbs.\$12.00

One-half dozen in a box.

DISSTON CHALLENGE



Bright finish flat steel frame. Steel blade, 14 inches long. 13 points to the inch.

Hardwood handle.

No. 12—Wt. per dozen 11 lbs.\$8.70

One-half dozen in a box.

PRUNING SAWS DISSTON



Skew Back

Made of Disston steel, reinforced hardwood handle can be used with gloved hand. Blade 6 inches wide at butt, $1\frac{1}{4}$ inch wide at point. 6 points to the inch, cuts on draw and push stroke, dry or green wood. Length blade, 26 inches.

No. D27—Wt. per dozen 22 lbs.\$45.00

One-third dozen in a box.

PRUNING SAWS DISSTON



Double Edge

Made of Disston steel, one edge has plain cross cut teeth, 8 points to the inch, other edge has teeth known as "Lumberman" or "Lightning" style for heavier work.

Hardwood handle large hand hole for gloved hand.

Length blade, in.	No. 4	
	Per dozen	Wt. per doz., lbs.
18	\$20.20	10
20	20.60	10 $\frac{3}{4}$

One-half dozen in a box.

DISSTON KEYSTONE



Double Edge

Made of special steel. One edge of blade has 8 point teeth, other edge has "Lightning" style teeth. Hardwood handle.

Length blade, in.	No. K40	
	Per dozen	Wt. per doz., lbs.
18	\$14.40	10
20	15.60	10 $\frac{1}{2}$

One-third dozen in a box.

DISSTON



Disston steel blade, reverse teeth to cut on draw stroke, 8 points to inch, $1\frac{1}{2}$ inches wide at handle. Length 14 inches. 6 inch hardwood handle.

No. 166—Wt. per doz. 6 $\frac{1}{2}$ lbs.\$15.70

One-half dozen in a box.

DISSTON LITTLE GIANT With Shear

Disston steel blade, 11 $\frac{1}{2}$ inches long, taper ground straight cutting edges. 7 points to the inch. Blade removable from hook.

Disston steel shear blade, 4 inches long, $1\frac{1}{2}$ inch cutting edge.

Malleable iron socket $1\frac{1}{2}$ inch inside diameter.

2 inch long, strong spring



returns knife to open position.

No. 35—Wt. per dozen
22 lbs.\$44.60

One-sixth dozen in a box.

CROSS CUT SAW HANDLES

DISSTON—TWO MAN



Old Climax Reversible

Hardwood handle, malleable bolt and wing nut, gray iron face plate and washer.

Length 13½ inches, diameter 1¾ inches.

No. 103—Wt. per pair 1½ lbs.\$0.75

Ten pairs in a carton.



Loop

Hardwood handle, malleable iron rod, gray iron ferrule and washer. Length handle from top to ferrule 3¾ inches, diameter 1½ inches.

No. 123—Wt. per pair 1½ lbs.\$0.60

Ten pairs in a carton.



Reversible

Hardwood double grip reversible handle, 14½ inches long, 1½ inch diameter.

Loop rod, frame and thumb screw; malleable iron strong threads will not strip.

No. 113—Wt. per pair 2½ lbs.\$1.25

Ten pairs in a carton.

DISSTON—ONE MAN



Hardwood slit and bored for three screws. Length 8½ inches, width 5 inches. Hand hole 4x1¼ inches. Furnished without screws.

No. 218—Wt. per dozen 7 lbs.\$7.20

One-half dozen in a box.

SUPPLEMENTARY SAW HANDLES

DISSTON



Hardwood handle, length 4¾ inches, 1½ inch diameter heavy steel ferrule, bolt held in handle by lock nut. Cannot work loose.

No. 118—Wt. per dozen 4 lbs.\$5.40

One dozen in a box.

HAND SAW HANDLES

DISSTON

When ordering saw handles, specify if they are for Regular, Lightweight or Ship saws, also specify the length of saw.



Applewood weatherproof finish, full carved, slotted for saw and accurately bored.

Nos.	Per dozen	For saws Nos.	Wt. per doz., lbs.
D12	\$17.40	D12	6
D23	16.20	D23	6

One dozen in a box.



Weatherproof finish, slotted for saws and accurately bored for screw holes in saw.

Nos.	Per doz.	For saw Nos.	Wood	Wt. per doz., lbs.
D7	\$ 9.00	D7	Beechwood	6¾
D8	13.00	D8	Applewood	7¼

One dozen in a box.



Beechwood

Slotted only. Sanded. Weatherproof finish.

Per dozen

No. 66—Wt. per dozen 6¾ lbs.\$4.80

One dozen in a box.

SAW SCREWS

DISSTON



No. 1



No. 2



No. 3 & 4

Made of solid brass, polished finish. Strong heads, deeply cut threads.

No. 1 for panel, compass, back and butcher saws.

No. 2 for hand and rip saws.

No. 3 for hand, rip and compass saws.

Nos.	Per dozen	Diam. head, in.	Style head	Wt. per doz., oz.
1	\$0.75	½	Plain	2¾
2	.80	¾	Plain	3¾
3	1.20	¾	Medallion	3¾
4	1.25	1	Medallion	4¾

One dozen in a box.

JEWELERS' SAW FRAMES

IMPORTED



Plain Forged Steel

Steel clamps, hardwood handle. Adjustable 4 to 6 inches.

Nos.	Each	Depth, inches	Wt. doz., lbs.
3821-3	\$1.10	3	3
3821-4	1.40	4	4

JEWELERS' SAW BLADES

DISSTON



Made of special steel, have rounded backs to prevent binding when cutting sharp curves. Hardened and tempered for cutting hard metals. Length 5¼ inches.

Nos.	Per dozen	Nos.	Per dozen
8/0	\$0.50	4	\$0.50
0	.50	5	.50
1	.50	6	.50
2	.50	8	.50
3	.50		

One dozen in a bundle, one gross in a box.

HACK SAWS

KLOSE KUT



Unusual design makes it fit where ordinary hack saws cannot be used. Contains a special wave set 10 inch blade. Will take any 10 inch or broken blade. Nickel plated frame.

No. 68—Wt. each 8 oz.\$0.75
Extra bladesPer doz. 1.50

One-half dozen in a box.

MILLERS FALLS KEYHOLE



Malleable iron handle, red and black enamel, 5½ inch blade, 18 teeth per inch.

Will cut nails, metal lath, plaster board, stucco, armored cable, conduit, packing, bakelite, fibre, wood, etc.

No. 237—Wt. each 4 oz.\$0.25
No. 7—Extra bladesPer doz. 1.45

One-half dozen in a box.

BAND SAWS**LENOX METAL CUTTING****Flexible Back, with Hardened Teeth**

The teeth require no filing and will cut until worn dull when they should be replaced with new blade.

Furnished with 6, 8, 10, 12, 14, 18, 22, 24, 32 teeth to the inch.

Wth., in.	Per foot	Welding, each	Thick- ness, in.	Gauge Nos.	Feet in lb.
1/4	\$0.09	\$0.40	.025	23	60
3/8	.10	.40	.025	23	35
1/2	.11	.40	.025	23	25
5/8	.14	.50	.032	21	16
3/4	.16	.50	.032	21	12
1	.20	.50	.035	20	9

Special Flexible Back for Bronze

Designed in such a manner as to possess an unusually keen tooth and a long life. Cuts brass and bronze castings rapidly with a fine singing cut, a real saw test.

Furnished with 6, 8, 10, 12, 14, 18, 22, 24, 32 teeth to the inch.

Wth., in.	Per foot	Welding, each	Thick- ness, in.	Gauge Nos.	Feet in lb.
1/4	\$0.09	\$0.40	.025	23	60
3/8	.10	.40	.025	23	35
1/2	.11	.40	.025	23	25
5/8	.14	.50	.032	21	16
3/4	.16	.50	.032	21	12
1	.20	.50	.035	20	9

**Resharpenable****Spring Temper, Bright Finish**

When dull can be resharpened. For aluminum, white metals, brass, fibre, tubing, etc.

Width, in.	Per foot	Welding, each	Thickness, inch	Teeth to inch
1/4	\$0.14	\$0.50	.025	8, 10
3/8	.15	.50	.025	8, 10
1/2	.17	.50	.025	6, 8, 10
5/8	.20	.60	.032	4, 6, 8, 10
3/4	.23	.60	.035	4, 6, 8
1	.28	.60	.035	4, 6, 8

Note—All lengths for standard machines carried in stock.

Cutting Suggestions

Material to be cut	Speed in running ft. per min.	Teeth per inch
Ann. Tool and H. S. Steel	125-150	14-12
Mach. and C. R. Steel...	150-175	14-10
Bze. and Hard Brass...	150-200	14-12
Soft Yellow Brass.....	200-300	14-12
Aluminum	300-400	10-8
Sheets & Tubing not less than 1/8" thick	150-175	18
Sheets & Tubing less than 1/8"	150-200	24
Brs. Sheets & Tubing...	200-300	24-18
Brs. & Brze. castings...	150-200	14-12
Drill Rod and Light Tool Steel Bars	125-150	24-18

BAND SAWS**LENOX WOOD CUTTING****Punched, Filed and Set**

Width, in.	Per foot	Welding, each	Gauge	Teeth per inch
1/4	\$0.13	\$0.50	22	4, 5, 6
3/8	.14	.50	22	4, 5, 6
1/2	.15	.50	21	3, 4, 5
5/8	.16	.60	21	3, 4
3/4	.18	.60	21	3, 4, 5
1	.22	.70	20	3, 4

CIRCULAR SAWS**KEYSTONE—HOME WORKSHOP****No. K41
Cross Cut**

Diam., in.	Each	Thickness, gauge	Hole, in.	Weight ea., lbs.
6	\$1.20	18	1/2	1 1/2
7	1.40	18	1/2	1 1/2
8	1.60	18	1/2, 5/8	7/8
10	2.00	16	1/2, 5/8	1 5/8

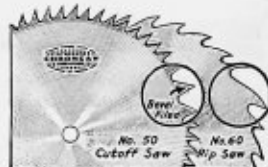
**No. K121
Rip**

Diam., in.	Each	Thickness, gauge	Hole, in.	Weight ea., lbs.
6	\$1.20	18	1/2	1 1/2
7	1.40	18	1/2	1 1/2
8	1.60	18	1/2, 5/8	7/8
10	2.00	16	1/2, 5/8	1 5/8

**No. K321
Combination**

Diam., in.	Each	Thickness, gauge	Hole, in.	Weight ea., lbs.
6	\$1.20	18	1/2	1 1/2
7	1.40	18	1/2	1 1/2
8	1.60	18	1/2, 5/8	7/8
10	2.00	16	1/2, 5/8	1 5/8

All above, one in a carton.

CIRCULAR SAWS**OHLEN-BISHOP CHROMSAWS****No. 50 Cut-Off Saw****No. 60 Rip Saw**

Made of special analysis saw steel, oil tempered. Properly tensioned by expert saw makers for high speed production. Extra high finish. Bevel filed ready for fast cutting.

Specifications

Diam., in.	Hole, in.	No. 50 No. of teeth	No. 60 No. of teeth	Rev. per min.
4	1/2	40	88	6830
6	1/2, 5/8	40	100	6830
7	1/2, 5/8	40	110	6260
8	1/2, 5/8, 3/4	44	100	5700
10	3/4, 1	36	100	4570
12	1, 1 1/4	36	100	3810
14	1, 1 1/4	36	80	3300
16	1, 1 1/4	36	80	2800
18	1 1/4, 1 1/2	36	80	2500
20	1 1/4, 1 1/2	36	80	2200
24	1 1/4, 1 1/2	36	72	1910

Diam., in.	No. 50 Cut-Off, each	No. 60 Rip, each	Gauge, No.	Weight ea., lbs.
4	\$ 2.50	\$ 2.50	19	3/8
6	2.50	2.50	18	1/2
7	3.30	3.30	17	3/4
8	3.30	3.30	17	7/8
10	4.20	4.20	16	1 1/8
12	5.30	5.30	15	2
14	6.40	6.40	14	4 1/4
16	7.90	7.90	14	7
18	9.40	9.40	13	9 1/2
20	11.40	11.40	13	11
24	15.50	15.50	11	17

**Combination**

Made of special analysis steel, oil tempered. Properly tensioned by expert saw makers for high speed production. Filed and set ready for use.

Can be used equally well for cross cutting and ripping.

Made with four cutting teeth for each raker tooth.

**No. 90
Specifications**

Diam., in.	Hole, in.	Revolutions per minute
6	1/2 or 5/8	6830
8	1/2, 5/8 or 3/4	5700
10	3/4 or 1	4570

Diam., in.	Each	Gauge Nos.	Weight ea., lbs.
6	\$2.50	18	3/8
8	3.30	17	7/8
10	4.20	16	1 1/8

HACK SAW FRAMES UNION



Adjustable 8 to 10 Inches

Nickel plated $\frac{3}{4}$ inch wide, steel frame, depth $2\frac{1}{2}$ inches. Wing tightening nut. Mahogany stained handle.

Per dozen

No. 2100—Wt. per dozen 12 lbs....\$6.00
One in a box.



Adjustable 8 to 12 Inches

Nickel plated $\frac{5}{8}$ inch wide, steel frame, depth $2\frac{1}{2}$ inches. Wing tightening nut. Nickel finish steel corrugated pistol grip handle. One blade with frame.

Per dozen

No. 2115—Wt. per dozen 14 lbs....\$10.00

MILLERS FALLS



Adjustable 8 to 12 Inches

Nickel plated $\frac{7}{8} \times 1\frac{1}{8}$ inch frame, depth $2\frac{3}{4}$ inches. Hardwood handle tightens blade. One blade with frame.

Each

No. 10—Weight each $1\frac{1}{4}$ lbs....\$2.35



Adjustable 8 to 12 Inches

Nickel plated $\frac{7}{8} \times 1\frac{1}{8}$ inch frame, depth $2\frac{3}{4}$ inches. Hardwood handle tightens blade. One blade with frame.

Each

No. 6—Wt. each $1\frac{1}{2}$ lbs.\$2.35



Heavy Solid Frame

Nickel plated $\frac{1}{4} \times 1$ inch steel frame, depth $5\frac{1}{4}$ inches. Mahogany finished handle tightens blade.

One 12 inch blade with frame.

Each

No. 15—Wt. each 2 lbs....\$3.00

All above, one in a box, with blade.

HACK SAW FRAMES MILLERS FALLS



Adjustable 8 to 12 Inches
Pistol Grip Handle

Nickel plated $\frac{7}{8} \times 1\frac{1}{8}$ in. steel frame. Depth $3\frac{1}{4}$ in., wing tightening nut. Molded black pistol grip handle. Blades can be faced in four directions.

One blade with frame.

Each

No. 1027—Wt. each $1\frac{3}{4}$ lbs.....\$1.70

MILLERS FALLS, UNIVERSAL



Adjustable 8 to 12 Inches

Metal pistol grip handle.

Sherardized, $\frac{7}{8} \times 1\frac{1}{8}$ in. steel frame, depth $3\frac{1}{4}$ in., wing tightening nut. Blade tension regulated by thumb nut. Checked steel pistol grip handle. Blades faceable four ways. One blade with frame.

Each

No. 1100—Wt. each $1\frac{1}{4}$ lbs.....\$2.50



Adjustable 8 to 12 Inches

Pistol grip handle.

Nickel plated $\frac{7}{8} \times 1\frac{1}{8}$ in. steel frame, depth $3\frac{1}{4}$ in. Wing tightening nut. Black composition handle plates screwed on both sides.

One blade with frame.

Each

No. 12—Weight each 2 lbs....\$3.25



Adjustable 8 to 12 Inches

Pistol grip handle.

Nickel plated $\frac{7}{8} \times 1\frac{1}{8}$ in. steel frame, depth $3\frac{1}{4}$ in. Wing tightening nut. Blade can be faced in four directions. Indestructible mottled red and black molded handle made of Tenite a plastic which is unbreakable and non-inflammable.

Each

No. 84—Weight each $1\frac{1}{2}$ lbs.....\$3.50

All above, one in a box, with blade.

HACK SAW FRAMES CRESCENT



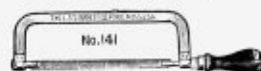
Adjustable 8 to 12 Inches

Metal pistol grip handle. Nickel plated $1\frac{1}{4} \times \frac{1}{2}$ in. steel frame, depth $2\frac{1}{2}$ inches. Wing tightening nut. Checkered steel pistol grip handle.

Each

No. 1046—Weight each $1\frac{1}{4}$ lbs....\$1.00

STARRETT



Solid Frame

Nickel plated steel frame. Hardwood stained handle, tightens blade in any four directions.

One blade with frame.

Nos.	Each	For blade, in.	Wt. each, lbs.
141A	\$0.85	8	1
141B	.90	10	$1\frac{1}{8}$
141C	1.00	12	$1\frac{1}{4}$



Rail, Solid Frame

Black enameled $\frac{1}{4} \times 1$ in. steel frame, depth $10\frac{1}{4}$ in. Wing tightening nut. Blade sets in four directions. Beech handle. One 12 inch blade with saw.

Each

No. 24—Weight each $3\frac{3}{4}$ lbs....\$2.80



Narrow Frame

Nickel plated steel frame to hold 8 in. hack saw blade. Hardwood stained handle tightens blade in any four directions. Used for cutting pipe conduit BX tubing, insulation, etc. Can also be used with No. 249 screw slotting blades.

One blade with frame.

Each

No. 150—Weight each $\frac{3}{4}$ lb.....\$0.75

All above, one a box, with blade.

MIDGET



Nickel plated steel wire frame, $1\frac{1}{4}$ in. deep at handle end. Holds a blade 6 in. long, $\frac{1}{4}$ in. wide, 32 teeth to the inch.

One blade with frame.

Per dozen

Midget—Wt. per dozen 3 lbs....\$3.00

One dozen in a box.

HACK SAW BLADES LENOX, ALL HARD



For Hand Frames

The "Lenox" All Hard blade is the style usually selected for the most efficient production and service.

Standard List, Tungsten Alloy Steel

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
6	\$ 8.00	$\frac{1}{8}$	23 Gauge	18, 24, 32
8	10.00	$\frac{1}{2}$	23 Gauge	14, 18, 24, 32
10	12.00	$\frac{3}{4}$	23 Gauge	14, 18, 24, 32
12	13.50	$\frac{1}{4}$	23 Gauge	14, 18, 24

One-half gross in a box.

LENOX, FLEXIBLE



For Hand Frames

The "Lenox" Flexible blade is hardened on the teeth only, the back being left soft which prevents breakage. We recommend them particularly to plumbers, electricians, and garage mechanics. Because of their unbreakable quality and the abuse they will stand, many machine shops prefer them for use by unskilled workers or where awkward cutting positions are encountered.

Standard List, Tungsten Alloy Steel

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
6	\$ 8.00	$\frac{1}{8}$	23 Gauge	18, 24, 32
8	10.00	$\frac{1}{2}$	23 Gauge	14, 18, 24, 32
10	12.00	$\frac{3}{4}$	23 Gauge	14, 18, 24, 32
12	13.50	$\frac{1}{4}$	23 Gauge	14, 18, 24

One-half gross in a box.

LENOX, POWER



Standard List, Tungsten Alloy Steel

For Light Power Machines

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
12	\$16.20	$\frac{5}{8}$	21 Gauge	14, 18
12	19.44	$\frac{3}{4}$	21 Gauge	14, 18
14	22.68	$\frac{1}{4}$	21 Gauge	14

For Heavy Power Blades

"Lenox" Heavy Power blades are built to fill every requirement of the modern high speed hack saw machine. For straight cutting, durability, and uniformity, they are unexcelled.

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
10	\$20.40	$\frac{3}{4}$	18 Gauge	10
12	24.48	$\frac{3}{4}$	18 Gauge	10, 14
12	32.64	1	18 Gauge	10, 14
14	28.56	$\frac{3}{4}$	18 Gauge	10, 14
14	38.08	1	18 Gauge	10, 14
14	58.80	$1\frac{1}{4}$	16 Gauge	4, 6, 10
17	46.24	1	18 Gauge	10, 14
17	71.40	$1\frac{1}{4}$	16 Gauge	4, 6, 10
18	75.60	$1\frac{1}{4}$	16 Gauge	6, 10
21	105.84	$1\frac{1}{2}$	16 Gauge	4, 6, 10
24	120.96	$1\frac{1}{2}$	16 Gauge	6, 10

Note—Specify teeth wanted and width when ordering.

HACK SAW BLADES LENOX, GENUINE HIGH SPEED



For Hand Frames

A very economical hack saw to use on quantity production. Their durable toughness avoids breakage.

Teeth stand up and remain keen under high speeds and temperatures.

Standard List

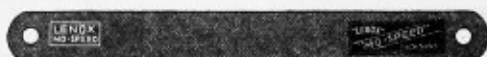
Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
10	\$40.32	$\frac{1}{8}$	23 Gauge	18, 24, 32
12	48.96	$\frac{1}{8}$	23 Gauge	14, 18, 24, 32

For Power Machines

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
12	\$172.80	1	18 Gauge	14
12	172.80	1	16 Gauge	6, 10
14	201.60	1	18 Gauge	14
14	201.60	1	16 Gauge	6, 10
14	252.00	$1\frac{1}{4}$	16 Gauge	4, 6, 10
17	244.80	1	18 Gauge	14
17	244.80	1	16 Gauge	6, 10
17	306.00	$1\frac{1}{4}$	16 Gauge	4, 6, 10
18	259.20	1	16 Gauge	10
18	324.00	$1\frac{1}{4}$	16 Gauge	4, 6, 10
18	427.68	$1\frac{1}{2}$	15 Gauge	4, 6
21	453.68	$1\frac{1}{2}$	16 Gauge	4, 6, 10
21	665.28	2	15 Gauge	4, 6
24	518.40	$1\frac{1}{2}$	16 Gauge	6, 10
24	760.32	2	15 Gauge	4, 6

Note—Specify teeth wanted and width when ordering.

LENOX, MO-SPEED



For Hand Frames

These blades are fabricated from molybdenum alloy high speed steel. Many months of experimental work has resulted in the latest method of heat treating.

Standard List

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
10	\$40.00	$\frac{1}{2}$	23 Gauge	18, 24, 32
12	48.00	$\frac{1}{2}$	23 Gauge	14, 18, 24, 32

For Power Machines

Lgth., in.	Per gross	Width, in.	Thickness	Teeth per in.
12	\$120.96	1	18 Gauge	14
12	120.96	1	16 Gauge	6, 10
14	141.12	1	18 Gauge	14
14	141.12	1	16 Gauge	6, 10
14	176.40	$1\frac{1}{4}$	16 Gauge	4, 6, 10
17	171.36	1	18 Gauge	14
17	171.36	1	16 Gauge	6, 10
17	214.20	$1\frac{1}{4}$	16 Gauge	4, 6, 10
18	181.44	1	16 Gauge	10
18	226.80	$1\frac{1}{4}$	16 Gauge	4, 6, 10
18	298.08	$1\frac{1}{2}$	15 Gauge	4, 6
21	317.52	$1\frac{1}{2}$	16 Gauge	4, 6, 10
21	463.68	2	15 Gauge	4, 6
24	362.88	$1\frac{1}{2}$	16 Gauge	6, 10
24	529.92	2	15 Gauge	4, 6

Note—Specify teeth wanted and width when ordering.

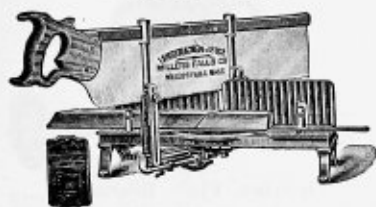
JEWELERS SAW BLADES LENOX



Flexible back hardened teeth, will cut wood, mica, bakelite, tubing, wire, and all metals of small dimensions.

Length, inches	6
Width, inches	$\frac{1}{4}$
Thickness, gauge	.014 or 28
Teeth per inch	32
Wt. per gross, oz.	14
Per gross	\$9.00

One gross in a box.

MITRE BOXES**MILLERS FALLS****LONDON ACME**
**Ball Bearing Saw Guides and
Adjustable Lever**

Friction is eliminated between guides and saw back using ball bearing saw guides, ball bearing lever makes it easy to swing saw from one angle to another. Indexed angle plate.

Red enameled steel bottom plates, roughened to prevent work slipping. Main castings black enameled. Bright parts nickel plated.

Equipped with high grade back saw, 10 points to the inch. Capacity all sizes, 10½ inches at right angles; 7 inches at mitre.

Nos.	With saw each	For saw, in.	Ship. wt. ea., lbs.
71A	\$24.95	22x4	34
72A	25.85	24x4	35
73A	26.25	26x4	36
74A	29.70	28x5	37
75A	31.55	30x5	38

One in a box.

**All Steel**
**Ball Bearing Saw Guides and
Saw Carriage**

Friction eliminated between guides and saw back. Ball bearing carriage swings freely from left or right from 45 to 90 degrees and locks automatically at most used angles. Adjustable gauges regulate depth of cut. Length gauge and attachment for cutting angles more acute than 45 degrees.

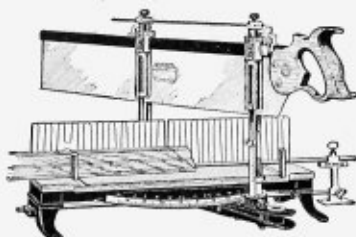
Bottom plates scored to keep work from slipping.

Equipped with high grade back saw.

Capacity all sizes 10½ inches at right angles, 7½ inches at mitre.

Nos.	With saw each	For saw, in.	Ship. wt. ea., lbs.
1244A	\$24.00	24x4	20
1264A	24.95	26x4	21
1285A	29.70	28x5	24
1305A	31.50	30x5	25

One in a box.

MITRE BOXES**STANLEY****Roller Bearing Saw Guides**

Tie bar at top gives great rigidity to uprights, roller bearings in saw guide minimize friction and wear. Adjustable spurs in back keep work from slipping. Stops on upright prevent sawing below base. Japanned one-piece cast iron frame. Malleable legs. Equipped with first quality back saw.

Capacities

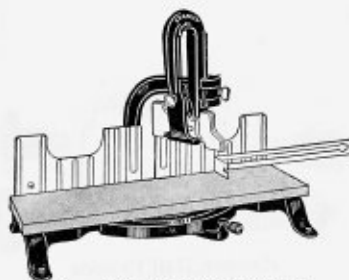
Nos.	Right angles, in.	Mitre 45 degree, in.	At 30° without stock guide, in.
240	8½	5½	3½
242	8½	5½	3½
244	8½	5½	3½
246	8½	5½	3½
358	9½	6½	4½

Nos.	With saw, each	For saw, in.	Ship. wt. ea., lbs.
240	\$24.48	20x4	32
242	25.08	22x4	32
244	25.66	24x4	35
246	26.32	26x4	35
358	29.40	28x5	40

Aluminum

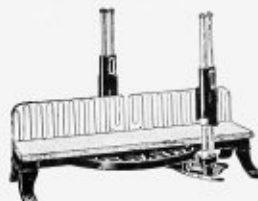
Same size as No. 358 but made entirely of aluminum.

Each
No. A358—Wt. each 30 lbs.\$41.00
One in a box.

**Open Front, Without Saw**

Easy to adjust and operate. Takes stock up to 4 inches high and open front permits extra wide boards to be sawed at 45 to 90 degree angles. Improved swivel mechanism and angle lock. Base swivel and yoke black japanned, bright orange board. No saw furnished.

Each
No. 150—Shipping wt. each 17 lbs...\$7.70
One in a box.

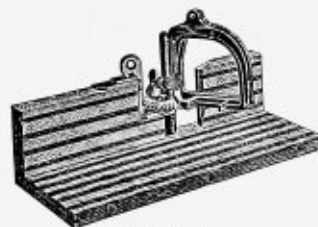
MITRE BOXES**STANLEY VICTOR****Without Saw**

Back frame, indexed quadrant and swivel arm, bearing made in one piece. Swivel arm may be locked at any angle.

Saw guide uprights can be adjusted to hold saw without side play. Movable stops on upright control the cut. Cast iron frame. Back aluminum color, board bright orange, balance light blue. No saw furnished.

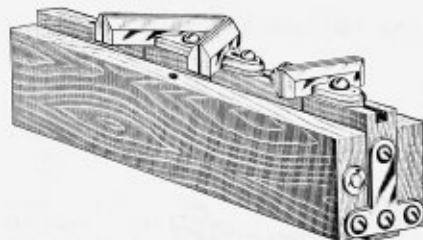
No.	50½
Cap. at right angles, in.	7¼
Cap. at 45° mitre, in.	4¾
Ship. wt. each, lbs.	20
Each	\$12.00

One in a box.

PERFECTION**Without Saw**

Made of inlaid wood; hand, back or panel saw may be used. Length 16 inches, width 6 inches, height of back 4 inches. Graduated angle dial. Japanned and nickel trimmings. No saw furnished.

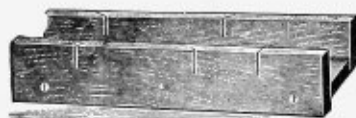
Each
No. 201—Wt. each 5 lbs.\$4.50
One in a box.

GEM FOLDING

Clear selected hardwood with shellac finish. Bright plated cast iron guides which are accurate and can be adjusted to any size or style of hand or back saw.

For sawing angles 45 and 90 degrees.
Dimensions when folded 2½x3½x14 inches.
Each
No. G—Wt. each 3½ lbs.\$2.50
One in a box.

MITRE BOXES REGULAR WOOD



Kiln dried hardwood with mitre and straight cuts.

Nos.	Each	Length, in.	Width, in.	Height inside, in.	Wt. doz., lbs.
1	\$0.75	12	2 3/4	2 1/8	22
2	1.00	18	3 3/4	2 5/8	36
3	1.25	24	3 7/8	3 1/8	48

Open stock.

MITRE MACHINES STANLEY MARSH



Roller Bearing Saw Guides

Originally designed for picture frame work but now used for all classes of wood work. With it any type of mitred joint may be cut, glued and nailed to make tight corners.

Mouldings less than 4 1/2 inches in width can be sawed and any frame 7 1/2 x 7 1/2 in. or larger can be clamped; the 7 1/2 inch clamping capacity insures accuracy in sawing large frames.

Roller bearing saw guides minimize wear and friction.

High quality saw furnished 26x4 1/2 inches.

Highest quality castings finished in blue enamel and orange enamel trimmings.

Each
No. 100—Ship. wt. 46 lbs.\$27.00
One in a box.

MITRE VISES MARSH

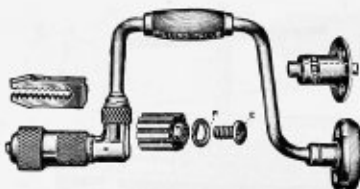


Will clamp any moulding up to 4 inches wide and join any frame larger than 3 1/2 x 3 1/2 in. Universal base

made so vise can be tilted. Gray iron castings, blue and orange enamel finish.

Each
No. 400—Ship. wt. 20 lbs.\$10.00
One in a box.

BIT BRACES MILLERS FALLS

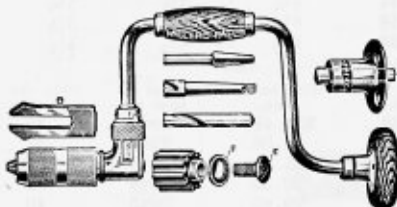


Ratchet, Ball Bearing

Full steel clad ball bearing head, boxed ratchet with ring shift. Lion ball bearing chuck holds regular square shank drills. No. 1 Morse taper, 1/8 to 1/2 inch round shank drills. Tropical hardwood head and handle. Nickel plated finish.

Nos.	Each	Sweep, in.	Weight each, lbs.
773	\$6.10	8	3
772	6.10	10	3 3/8
771	6.25	12	3 1/2
770	6.40	14	4
769	6.75	16	4 1/2

MILLERS FALLS HOLD-ALL



Ratchet, Ball Bearing

Steel clad ball bearing head, boxed ratchet with ring shift. Master chuck holding square shank No. 1 Morse taper and 1/8 to 1/2 inch round shank drills. Tropical hardwood head and handle.

Nickel plated finish.

Nos.	Each	Sweep, in.	Weight each, lbs.
733	\$5.00	8	2 3/4
732	5.00	10	3 1/8
731	5.20	12	3 1/4
730	5.40	14	3 1/2



Ratchet, Ball Bearing

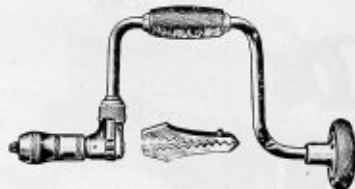
Steel clad ball bearing head, boxed ratchet with ring shift. Barber chuck with forged steel alligator jaws for square shank bits. Tropical hardwood head and handles.

Nickel plated finish.

Nos.	Each	Sweep, in.	Weight each, lbs.
34	\$4.80	6	2 1/4
33	4.80	8	2 1/2
32	4.80	10	2 3/8
31	5.00	12	3
30	5.25	14	3 3/8

All above, two in a box.

BIT BRACES MILLERS FALLS



Ratchet, Plain Bearing

Plain bearing head, semi-boxed ratchet with ring shift. Barber chuck with improved malleable alligator jaws for square shank bits.

Mahogany finished hardwood head and handles.

Nickel plated finish.

Nos.	Each	Sweep, in.	Weight each, lbs.
1663	\$2.40	8	2
1662	2.40	10	2 1/4
1661	2.60	12	2 3/8

Six in a box.



Plain Pattern

Plain bearing head, Barber chuck with alligator jaws, head and handles. Hardwood mahogany stained. Polished finish.

Nos.	Each	Sweep, in.	Weight each, lbs.
143	\$1.00	8	1 5/8
142	1.00	10	1 3/4
141	1.00	12	1 7/8

Six in a box.

YANKEE



Ratchet Ball Bearing Chuck

Plain bearing head, boxed ratchet with quick positive shifter. Quick centering ball bearing chuck, holds any round and taper shank drills up to 1/2 inch and all square shank auger bits. Hard rubber head and handle.

Metal parts chromium plated.

No. 2100	Each	Wt. each, lbs.
Sweep, in.		
8	\$ 9.80	3
10	10.00	3 1/8
12	10.20	3 1/4
14	10.60	3 1/2

One in a box.

BIT BRACES **STANLEY**

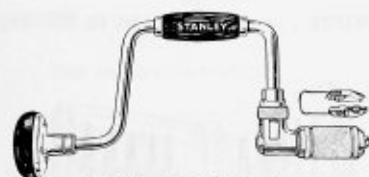


Ratchet, Ball Bearing

Steel clad ball bearing head, concealed ratchet ring shift. Chuck with Universal jaws holds square shank bits and round shank drills $\frac{1}{8}$ to $\frac{1}{2}$ inch diameter. Cocobolo handle and head; metal parts nickel plated.

Sweep, in.	Each	Wt. each, lbs.
8	\$5.46	3
10	5.46	3 $\frac{3}{8}$
12	5.64	3 $\frac{1}{2}$
14	5.82	3 $\frac{3}{4}$

Two in a box.

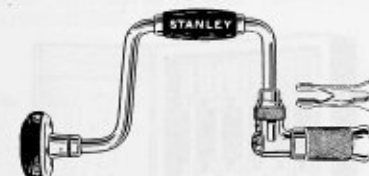


Ratchet, Ball Bearing

Steel clad ball bearing head, box ratchet with ring shift. Chuck with Universal jaws holds square shank bits and round shank drills $\frac{1}{8}$ to $\frac{1}{2}$ inch diameter. Nut and cotter pin locks entire chuck in place. Cocobolo head and handle. Metal parts nickel plated.

Sweep, in.	Each	Wt. each, lbs.
10	\$5.00	3 $\frac{1}{4}$
12	5.20	3 $\frac{1}{2}$
14	5.40	3 $\frac{3}{4}$

Two in a box.



Ratchet, Ball Bearing

Steel clad ball bearing head box ratchet with ring shift. Forged interlocking jaws for taper shank bits only.

Nut and cotter pin locks entire chuck in place.

Cocobolo head and handle. Metal parts nickel plated.

Sweep, in.	Each	Wt. each, lbs.
8	\$6.00	2 $\frac{3}{4}$
10	6.00	3 $\frac{1}{4}$
12	6.20	3 $\frac{1}{2}$

Two in a box.

BIT BRACES **STANLEY**



Ratchet, Ball Bearing Chuck

Steel clad ball bearing head. Box ratchet with ring shift. Ball bearing chuck with Universal forged jaws for square taper shank bits and round shank drills $\frac{1}{8}$ to $\frac{1}{2}$ inch diameter. Cocobolo head and handle. Metal parts nickel plated.

Sweep, in.	Each	Wt. each, lbs.
10	\$6.10	3 $\frac{1}{2}$
12	6.30	3 $\frac{3}{4}$
14	6.40	3 $\frac{3}{8}$

Two in a box.



Ratchet, Ball Bearing

Ball bearing head, open ratchet with ring shift. Malleable iron alligator jaws for square shank bits only. Hardwood head and handle. Metal parts nickel plated.

Sweep, in.	Each	Wt. each, lbs.
8	\$3.20	2 $\frac{1}{2}$
10	3.20	2 $\frac{3}{4}$
12	3.40	3

One-half dozen in a box.

DEFIANCE



Ratchet, Ball Bearing

Metal clad ball bearing head, open ratchet, alligator jaw, chuck for taper bit shank drills. Hardwood head and handle. Nickel plated 10 inch sweep.

Each
No. 1250—Wt. each 2 $\frac{3}{4}$ lbs.\$2.70



Ratchet, Plain Bearing

Open ratchet, alligator jaws, hardwood head and handles. Sweep 10 inches. Polished finish.

Each
No. 1253—Wt. each 2 $\frac{3}{8}$ lbs.\$1.30
Six in a box.

CORNER BIT BRACES **STANLEY**

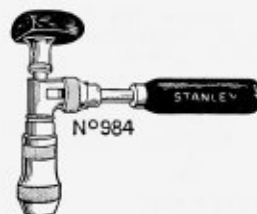


Interlocking Jaws

Metal clad head, steel frame, phosphor bronze gear frame, cut gears. Cocobolo head and handle.

Sweep, in.	Each	Wt. each, lbs.
8	\$9.80	3 $\frac{3}{8}$
10	9.80	4

Two in a box.



Ratchet

For mechanics working in small corners. Alligator jaw chuck, Cocobolo head and ratchet.

Nickel plated. Height 7 in.

Each
No. 984—Wt. each 2 $\frac{3}{8}$ lbs.\$5.50
Two in a box.

ANGULAR BORERS **MILLERS FALLS**



Master chuck holds square, No. 1 Morse taper and $\frac{1}{8}$ to $\frac{1}{2}$ inch round shank drills. Will drill at angles 180 to 125 degrees. Cast iron frame. Steel shank, joints and pins. Black enameled. Length 12 $\frac{1}{2}$ inches.

Each
No. 108—Wt. each 2 lbs.\$3.50
One in a box.

AUGER HANDLES **MILLERS FALLS**



Ratchet

Ratchet controlled by small lever, operates right or left and locked. Left handle can be attached to top. Chuck holds all size bits, ash handles. Nickel plated chuck. Length 15 inches.

Each
No. 4—Wt. each 2 $\frac{3}{4}$ lbs.\$4.50
One in a box.



Holds all size auger bits. Ash handles, frame black enameled. Length 16 inches.

Each
No. 3—Wt. each 1 $\frac{1}{4}$ lbs.\$1.40
Three in a box.

AUGER HANDLES MILLERS FALLS



Holds all sizes auger bits and all but largest sizes of ship auger shanks, 3 inch steel shanks, wing nut, straight grain ash handles. Length 17 inches.

Each
No. 2—Wt. each 1 1/4 lbs. \$1.00
Six in a box.

BIT EXTENSIONS STANLEY



Follows 1/2 Inch Bit, Capacity 1 Inch

Drop forged hardened and tempered shank and socket nut and knurled wrench case hardened. Nickel plated.

No. 180		Wt.
Lgth., in.	Each	ea., lbs.
12	\$2.20	3/4
18	2.20	7/8
24	2.40	1 1/4

One in a box.



Follows 1/2 Inch Bit, Capacity 3/4 Inch

Drop forged hardened and tempered jaws and shank. Sleeve and nut one-piece knurled tubing. Nickel plated and blued finish.

No. 3		Wt.
Lgth., in.	Each	ea., lbs.
15	\$2.20	3/4
18	2.20	7/8
24	2.40	1 1/4

One in a box.

YANKEE



Follows 1/2 Inch Bit or Larger

Accurately machined, bit will not jam in socket, holds bit firmly. Chromium plated.

No. 2150		Wt.
Lgth., in.	Each	ea., lbs.
15	\$2.35	1
18	2.40	1 1/8
21	2.50	1 1/4
24	2.60	1 1/2

All above, one in a box.

AUGER BIT ROLLS



Heavy canvas, Canton flannel lining. With flap, pockets and strap and buckle. Holds 13 bits 1/4 to 1 inch.

Each
No. 1 BR. \$1.50

EXPANSIVE BITS CLARK'S PATENT



Forged Tool Steel, Polished Screw Adjustment

Nos.	Per doz.	Lth., in.	Small cutter		Large cutter	Wt. per doz., lbs.
			bore, in.	bore, in.		
2	\$18.00	7	1/2-7/8	3/4-1 1/2	3	
1	26.00	10	3/8-3/4	1 1/4-3	6	

One in a box.

EXTRA CUTTERS FOR ABOVE

Nos.	Per doz.	For bit Nos.	Cutting from in.
1C	\$3.00	1	1/2 to 7/8
2C	3.75	1	7/8 to 1 1/2
3C	5.25	2	3/4 to 1 3/4
4C	6.00	2	1 1/4 to 3
5C	9.00	2	3 to 4
6C	12.00	2	4 to 5

One dozen in a box.

ARROW HEAD



Micrometer Screw Adjustment

Made of tool steel, screw with adjustable cutter to 1-1000 of an inch.

Nos.	Per dozen	Lgth., in.	Small cutter		Large cutter	Wt. per doz., lbs.
			bore, in.	bore, in.		
2A	\$22.00	8 1/2	5/8-1 1/8	1 1/2-2	4 1/2	
1A	26.00	9 1/2	7/8-1 1/4	1 3/4-3	7 1/2	

One in a canvas bag.

EXTRA CUTTERS FOR ABOVE

Nos.	Per doz.	For bit Nos.	Cutting from, in.
1A	\$5.00	2A	5/8-1 1/8
2A	5.00	2A	1 1/2-2
3A	5.25	1A	7/8-1 1/4
4A	6.00	1A	1 3/4-3
5A	12.00	1A	3-4

One-half dozen in a box.

AUGER BITS FORSTNER



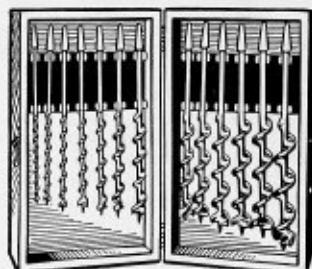
For Smooth and Round Boring

In. 16ths	Each	Lgth., in.	In. 16ths	Each	Lgth., in.
4	\$1.00	6 1/4	15	\$1.90	7 1/4
5	1.00	6 1/4	16	1.90	7 3/4
6	1.10	6 1/4	17	2.00	7 3/4
7	1.10	6 1/4	18	2.00	7 3/4
8	1.15	6 3/4	19	2.15	7 3/4
9	1.25	6 3/4	20	2.45	8 1/4
10	1.25	6 3/4	21	2.45	8 1/4
11	1.35	6 3/4	22	2.60	8 1/4
12	1.45	7 1/4	23	2.90	8 1/4
13	1.55	7 1/4	24	3.30	8 1/4
14	1.55	7 1/4			

Above also furnished 1/2 inch round shanks for boring machines.

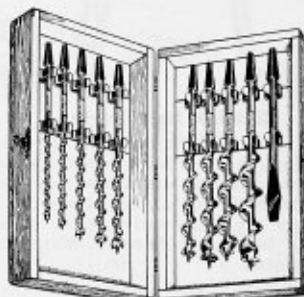
AUGER BIT SETS IRWIN BLUWIN BORCHESTS

Alloy steel, heat treated all over, ground to exact size and finished in heat treatment blue.



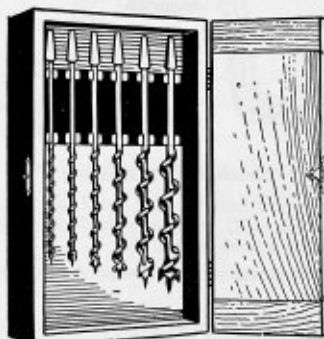
No. DM162T Carpenters Set, 13 Bits
No. BBM162T Home Set, 6 Bits

Set No.	Per set	Bits in sets by 16ths of in.	Wt. per set, lbs.
DM162T	\$9.60	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16	4 1/2
BBM162T	4.80	4, 6, 8, 10, 12, 16	3 1/2



Handy Set, 9 Bits
1 Screw Driver Bit

Set No.	Per set	Bits in sets by 16ths of in.	Wt. per set, lbs.
AM162T	\$7.00	4, 5, 6, 7, 8, 10, 12, 14, 16	3 3/4

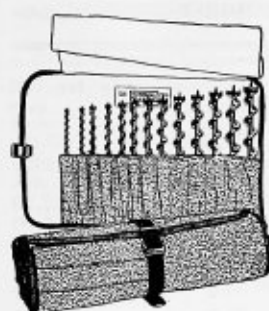


Little Six Set—6 Bits

Set No.	Per set	Bits in sets by 16ths of in.	Wt. per set, lbs.
AAM162T	\$4.50	4, 5, 6, 8, 10, 12	3 1/2

All above, one set in a hinged cover wood box.

AUGER BIT SETS **IRWIN BORKIT**



Handy Set
No. AR162T
Bluwin
Brand
No. A262T
Irwin Brand
9 bits and 1
screw driver
bit.

Home Set
No. BBR162T
Bluwin
Brand
6 bits.
Made of al-
loy and spe-
cial bit steel.

Set Nos.	Per set	Bits in sets by 16ths of in.	Wt. per set, lbs.
AR162T	\$6.60	4, 5, 6, 7, 8, 10 12, 14, 16, & scw. driver bit	4
AR62T	6.25	4, 5, 6, 7, 8, 10, 12, 14, 16, & scw. driver bit	3 3/4
BBR162T	4.50	4, 6, 8, 10, 12, 16	3

One set in a canvas roll.

RUSSELL JENNINGS



In Hardwood Boxes

Contains 13 No. 100 Russell Jennings bits as follows, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16/16ths of an inch. Three section hardwood box. Varnished.

32 1/2 Quarters

No. 2RJ—Wt. per set 4 1/2 lbs. \$8.50

One set in a box.

AUGER BITS **MEPHISTO**



Double cutter. Extension lip. Coarse worm, fast boring. Special forged steel, hardened and tempered.

No. 900

In. 16ths	Per doz.	Lth., in.	Wt. per doz., lbs.
10	\$ 9.60	8 3/4	2 7/8
11	10.24	8 3/4	3
12	10.88	8 3/4	3 1/4

Onehalf dozen in a box.

AUGER BITS **RUSSELL JENNINGS**



Double Cutter, Extension Lip

Forged crucible tool steel, oil tempered, polished twist and stem. Natural finish shank, double spur and extension lip, double thread on screw. Average length 9 in.

No. 100

In. 16ths	Per doz.	Wt. per doz., lbs.	In. 16ths	Per doz.	Wt. per doz., lbs.
3	6.00	1	14	\$8.25	4 1/2
4	5.00	1 1/4	15	9.50	4 3/4
5	5.00	1 3/4	16	9.50	5 1/4
6	5.00	1 1/2	18	12.00	5 1/2
7	5.00	1 3/4	20	14.00	6
8	5.00	2 1/4	22	16.00	6 1/2
9	6.00	2 1/2	24	18.00	7
10	6.00	2 3/4	26	21.00	8
11	7.00	3 1/4	28	24.00	9
12	7.00	3 1/2	30	27.00	10
13	8.25	4	32	30.00	11

3/16 to 1 1/8, one dozen; larger sizes, one-half dozen in a box.

IRWIN-BLUWIN



Double Cutter Extension Lip Solid Center

Alloy steel, heat treated, blue finish, solid center. Single worm. Average length 8 1/2 in.

No. 162T

In. 16ths	Per doz.	Wt. per doz., lbs.	In. 16ths	Per doz.	Wt. per doz., lbs.
3	\$6.00	1 1/4	14	\$12.00	4 1/2
4	6.00	1	15	12.60	5
5	6.00	1 1/4	16	13.20	6
6	6.00	1 1/2	18	15.00	7
7	6.60	2	20	17.40	8
8	7.20	2 1/2	22	19.20	9
9	7.80	2 3/4	24	22.20	10
10	8.40	3	26	24.60	11
11	9.60	3 1/4	28	27.00	12
12	10.20	3 3/4	30	30.00	12 1/2
13	10.80	4	32	33.00	12 3/4

3/16 to 16/16, one-half dozen, larger sizes, one-quarter dozen in a box.

GREENLEE, JAXON



Double Cutter, Extension Lip Solid Center

Forged steel, not polished.

No. 22B

In. 16ths	Per doz.	Wt. per doz., lbs.	In. 16ths	Per doz.	Wt. per doz., lbs.
3	\$4.50	3/4	15	\$9.00	4 1/2
4	4.00	1	16	9.00	4 3/4
5	4.00	1 1/4	17	10.50	6
6	4.00	1 1/2	18	10.50	6 1/2
7	4.50	1 3/4	19	12.00	7 1/4
8	5.00	2	20	12.00	8
9	5.50	2 1/4	21	13.50	8 1/2
10	6.00	2 1/2	22	13.50	9
11	7.00	3	23	15.00	9 1/2
12	7.00	3 1/2	24	15.00	10
13	8.00	3 3/4	28	19.00	12
14	8.00	4	32	23.00	12 3/4

3/8 to 1 1/4 in, one-half dozen in a box, larger sizes, one-quarter dozen in a box.

ELECTRICIANS' BITS **IRWIN-BLUWIN**



Single Cutter, Extension Lip

Alloy steel, extra hard cutting head. Especially fast, designed for electricians, line men, steam fitters and plumbers. Blue finish, 6 inch twist, 10 inches over all.

No. 13E

In. 16ths	Per dozen	Wt. per doz., lbs.
10	\$12.00	2 7/8
11	12.00	3 1/8

One-half dozen in a box.

DOWEL BITS **MEPHISTO**



Made of special bit steel.

Used for boring holes for dowels, also used by electricians, plumbers and steam fitters. Length about 6 inches.

No. 5

In. 16ths	Per doz.	Lth., in.	Wt. per doz., lbs.
11	\$10.24	5 3/4	2 1/4
16	13.76	5 7/8	3 1/4
18	16.40	6 1/2	4 1/4
20	20.48	6 1/2	4 3/4
24	24.64	5 1/2	4
28	32.80	5 1/2	4 1/2
32	41.04	5 1/2	5 1/4

Six in a box.

CAR BITS **IRWIN**



Double Cutter, Extension

Alloy steel, heat treated, blue finish. Made for heavy work. 12 inch twist, 18 in. over all.

No. 165T

In. 16ths	Per doz.	Wt. per doz., lbs.	In. 16ths	Per doz.	Wt. per doz., lbs.
4	\$13.20	3	13	\$25.80	9
5	13.20	3	14	28.20	10
6	13.20	4	15	30.00	10
7	15.00	4	16	32.40	11
8	16.80	5	17	35.40	12
9	18.60	6	18	38.40	13
10	20.40	7	19	41.40	13
11	22.20	7	20	44.40	14
12	24.00	8			

4/16 to 16/16 inch, one-half dozen in a box, balance one-quarter dozen in a box.

SHIP AUGER CAR BITS

FORD



Single Cutter with Screw

Forged from highest grade tool steel. Specially efficient for boring in rough timbers and woods with a firm grain. Cuts easily and freely to full depth of twist.

12 inch twist, 18 inches over all.

No. 922

Ins. 16ths	Per doz.	Wt. per dozen, lbs.	Ins. 16ths	Per doz.	Wt. per dozen, lbs.
6	\$11.00	3	13	\$13.00	11½
7	11.00	4½	14	13.00	12½
8	11.00	6	15	14.50	13½
9	11.00	6	16	14.50	16
10	11.00	7½	17	16.00	21
11	12.00	8½	18	22.00	22
12	12.00	10			

Up to No. 16 one-half dozen in a box, larger sizes one-quarter dozen in a box.

SHIP AUGERS

GREENLEE



Single Cutter with Screw

Forged steel polished, oil tempered, single thread screw.

No. 66

Ins. 16ths	Per doz.	Length twist, in.	Length overall, in.	Wt. per dozen, lbs.
6	\$11.00	10	15	3½
7	11.00	10	15	4
8	11.00	10	15	4¾
9	11.00	12	17	6½
10	11.00	12	17	7½
11	12.00	12	17	8½
12	12.00	12	17	9½
13	13.00	12	17	11½
14	13.00	12	17	13¾
15	14.50	12	17	14½
16	14.50	12	17	17½
17	16.00	15	20	22½
18	16.00	15	20	25
19	18.00	15	20	26¾
20	18.00	15	20	28
21	20.00	15	20	29¾
22	20.00	15	20	34
23	23.00	15	20	36
24	23.00	15	20	39
25	27.00	15	20	41¾
26	27.00	15	20	42¾
27	32.00	15	20	45
28	32.00	15	20	45
29	38.00	15	20	48¾
30	38.00	15	20	49½
31	45.00	15	20	52½
32	45.00	15	20	54

One-half dozen in a box.

CARPENTERS' NUT AUGERS

GREENLEE

Double Twist Pattern
Single Cutter with Screw

Forged steel, medium coarse screw point. Sizes up to 1½ inches have polished twist, larger sizes japanned hollows.

No. 88

Size, in.	Per doz.	Length twist, in.	Length overall, in.	Wt. per dozen, lbs.
½	\$10.00	6	14¼	4¾
¾	10.00	6¼	15	5
¾	11.00	6¼	15	6
¾	13.00	6½	15¼	6¾
1	15.00	6½	15¼	7½
1¼	17.00	7	15¼	9
1¼	19.00	7	16	10½
1¾	21.00	7½	17	12½
1¾	24.00	7½	17	15
1¾	28.00	7½	17	21
2	32.00	8	18	23
2¼	42.00	8½	19¼	33
2¼	52.00	8½	19¼	37
2¾	72.00	9	20½	46
3	92.00	9	20½	53
3½	152.00	9½	20½	68
4	212.00	9½	20½	87

1½ inch and smaller half dozen, 1¾ and 2 inch, one-quarter dozen, larger sizes one-sixth dozen in a box.

BORING MACHINE AUGERS

GREENLEE



Single Cutter with Screw

Forged steel, ½ inch round shank has pin hole and recess. Fits all standard machines. 7½ inch twist, 11 inches over all.

No. 84

Size, in.	Per doz.	Wt. per dozen, lbs.	Size, in.	Per doz.	Wt. per dozen, lbs.
½	\$10.00	4½	1¼	\$19.00	10½
¾	10.00	5½	1¾	21.00	12
¾	11.00	6¾	1¾	24.00	13½
¾	13.00	7¼	1¾	28.00	14
1	15.00	9	2	32.00	18¼
1¼	17.00	10			

½ to 1½ inches one-half dozen, larger sizes one-quarter dozen in a box.



Double Cutters, Extension Lip

Special steel heat treated. Length 6 inches, shank ½x2 inches.

No. A62R

Size, in.	Per doz.	Wt. per dozen, lbs.	Size, in.	Per doz.	Wt. per dozen, lbs.
¼	\$12.00	1½	½	\$16.20	4
½	12.00	1¾	¾	17.40	4½
¾	12.00	2	¾	18.60	5
¾	12.00	2¼	¾	20.40	5½
¾	12.00	2½	¾	21.60	6
¾	13.20	3	1	22.80	6½
¾	15.00	3½			

One-half dozen in a box.

BELL HANGERS' AND ELECTRICIANS' DRILLS

MORSE



Carbon steel, made especially for bell hangers and electricians.

No. 393

Size, in.	Lth., in.	Per doz.	Lth., in.	Per doz.	Lth., in.	Per doz.
6/32	12	\$7.50	18	\$10.00	24	\$12.50
8/32	12	8.00	18	10.50	24	13.00
10/32	12	8.75	18	11.00	24	13.50
12/32	12	9.50	18	12.00	24	14.50
14/32	12	10.50	18	13.00	24	15.50

WOOD BORING DRILLS

MORSE



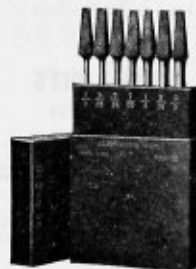
Carbon steel, designed especially for cutting freely and rapidly in wood and will drill straight in any way of the grain without splitting.

No. 392

Size, in.	Per doz.	Length overall, in.
2/32	\$ 3.25	3½
3/32	3.25	4
4/32	3.25	4½
5/32	3.50	5
6/32	4.00	5½
7/32	4.50	6
8/32	5.00	6½
9/32	5.50	7
10/32	6.00	7½
11/32	6.50	7¾
12/32	7.00	8
13/32	7.50	8¼
14/32	8.00	8½
15/32	8.75	8¾
16/32	9.50	9
18/32	10.00	9½
20/32	12.50	9½
22/32	14.50	10
24/32	16.50	10
28/32	21.00	10
32/32	27.00	10

WOOD DRILL SETS

MORSE



Set consists of 7 drills as follows: one each 4/32, 5/32, 6/32, 7/32, 8/32, 10/32, 12/32 in a convenient case.

Per set
No. 26—Wt. per set ¾ lb. \$3.70

One set in a box.

GIMLET BITS

SWAN



Crucible steel, tempered, black finish.

No. 6030

Size inches	Per dozen	Wt. per dozen, lbs.
2/32	\$2.00	1/2
3/32	2.00	1/2
4/32	2.00	5/8
5/32	2.00	5/8
6/32	2.00	3/4
7/32	2.00	7/8
8/32	2.00	1
9/32	2.00	1 1/8
10/32	2.00	1 1/4
11/32	2.25	1 5/8
12/32	2.25	1 3/4

One dozen in a box.

COUNTERSUNK GIMLET BITS

SNELL



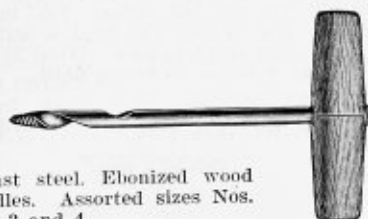
Forged cast steel, diamond point and full turn twist. For screws from 3/4 to 1 1/4 inches. Length over all 4 to 5 inches.

No. 66

Nos.	Per dozen	To bore, inches	Wt. per doz., lbs.
0	\$2.00	5/32x 3/4	3/4
1	2.00	6/32x1	3/4
2	2.00	7/32x1 1/4	1
3	2.00	8/32x1 1/2	1
4	2.00	9/32x1 3/4	1 1/4

One dozen in a box.

NAIL GIMLETS



Cast steel. Ebonized wood handles. Assorted sizes Nos. 1, 2, 3 and 4.

Per dozen

No. 280—Wt. doz. 7 oz.\$2.50

Three dozen in a box.



Cast steel. Metal handle. Assorted sizes Nos. 1, 2, 3 and 4.

Per dozen

No. 330—Wt. per doz. 1 lb.\$1.25

Six dozen in a box.

ELECTRICIANS' GIMLETS

SNELL



High grade steel, for electricians, bell hangers, telephone workers, etc. Riveted hardwood handles.

No. 85

Size, inch	Length, inches	Per dozen	Wt. per doz., lbs.
1/4	18	\$7.00	3 1/2
5/16	18	7.00	4 1/2
3/8	24	9.00	4
1/2	24	9.00	5

One dozen in a box.

BIT GAUGES

STANLEY



Adjustable

Can be attached to any size bit up to 1 inch. Stops on both sides of guides, insures bit remaining upright when desired depth is reached. Nickel plated. 2 1/2 inches long.

Each

No. 49—Wt. each 5/8 lb.\$1.00

One-twelfth dozen in a box.

MILLERS FALLS BALL BEARING



Fits shank of any bit. Contact ball revolves on ball bearings which reduce friction to a minimum and prevent defacing most delicate material. Length 5 3/4 inches. Nickel plated finish.

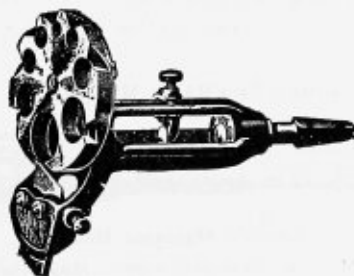
Each

No. 2—Wt. each 2 oz.\$0.60

Six in a box.

HOLLOW AUGERS

STEARNS



Nickel plated ground face disc, cold rolled steel shank, tool steel knife. Japanned barrel, cuts tenons from 3/8 to 1 inch.

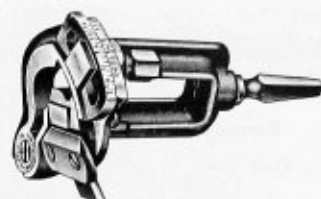
Each

No. 4—Wt. each 1 1/2 lbs.\$2.25

One-sixth dozen in a box.

HOLLOW AUGERS

MILLERS FALLS



Adjustable

Malleable iron body, frame enameled red and black, bright parts polished. Steel knife tempered and sharpened. Steel adjusting screws, graduated index. Stop gauge for regulating the length of tenons. Cuts tenons 1/4 to 1 1/4 inches.

Each

No. 3—Wt. each 3/4 lb.\$7.00

One in a box.

SPOKE POINTERS

STEARNS



Japanned iron body, cast steel blade with adjustable graduated shank.

Nos.	Per dozen	Points up to diam., in.	Wt. per doz., lbs.
1	\$16.00	1 1/2	7
2	20.00	2 5/8	12

One-half dozen in a box.

PLUG CUTTERS

STEARNS



For cutting plugs where it is necessary to cover heads of screws on work requiring a fine finish. Tool steel knives, tempered and interchangeable. Held in place by a steel band.

Nos.	Per dozen	Size, inches	Wt. per doz., lbs.
1	\$8.00	3/8	1 1/2
3	9.00	1/2	1 3/4
5	10.00	5/8	2 1/4

One-half dozen in a box.

DOWEL SHARPENERS

STANLEY



Steel, Nickel Plated

Per dozen

No. 22—Wt. per doz. 1 1/2 lbs.\$6.00

One-half dozen in a box.

DOWEL PLATES**Forged Steel, Polished**Four holes $\frac{1}{4}$ to $\frac{1}{2}$ inch.

Per dozen

No. 78—Wt. per dozen 11 $\frac{1}{4}$ lbs....\$12.00

One-half dozen in a box.

DOWEL AND ROD TURNING MACHINES**STANLEY**

For cutting dowels of various lengths and sizes, also for forming rods of practically any length. Crank can be adjusted for long or short throw, giving power or speed to machine as needed. One cutter head complete for making dowels or rods, $\frac{3}{8}$ inch diameter is furnished. Japanned finish.

Each

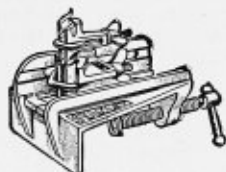
No. 77—Wt. each 15 lbs....\$12.00

One in a box.

EXTRA CUTTER HEADS

Each

Sizes— $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ inch\$1.50

DOWELING JIGS**STANLEY**

For boring dowel holes in the edge, end or surface of work. Will take any thickness of material up to 3 in. Also used as a bit guide for mortising. A depth gauge is furnished which can be used with or without the jig. Nickel plated finish. Equipped with five guides, one each: $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{7}{8}$ and $\frac{1}{2}$ inch.

Each

No. 59—Wt. each 1 $\frac{3}{4}$ lbs....\$3.00

One in a box.

AUTOMATIC DRILLS**YANKEE****Knurled Magazine Handle**

Made of steel and brass. Magazine in handle for holding eight fluted drill points, $\frac{1}{8}$ to $\frac{1}{4}$ inch. Length over all 11 $\frac{1}{2}$ inches. Chrome plated finish.

Each

No. 41—Wt. each 9 oz....\$3.00

Extra Springs20

One in a box.

**Plain Magazine Handle
Adjustable Spring Tension**

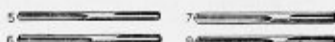
Made of steel and brass. Magazine in handle for holding eight fluted drill points, $\frac{1}{8}$ to $\frac{1}{4}$ inch. Spring regulates tension for hard and soft wood and large or small drill points. Length 11 $\frac{1}{4}$ inches. Chrome plated finish.

Each

No. 44—Wt. each 9 oz....\$3.50

Extra Springs20

One in a box.

GOODELL-PRATT**Bakelite Magazine Handle****Aluminum Bands**

Made of steel and brass. Magazine in handle holds eight fluted drill points $\frac{1}{8}$ to $\frac{1}{4}$ inch. Four jaw chuck. Length 9 $\frac{1}{2}$ inches. Nickel plated finish.

Each

No. 188A—Wt. each 6 oz....\$1.80

One in a box.

GOODELL-PRATT MR. PUNCH**Knurled Magazine Handle**

Made of steel and brass. Magazine in handle holds eight fluted drill points $\frac{1}{8}$ to $\frac{1}{4}$ inch. Two jaw chuck. Length 10 inches. Nickel plated finish.

Each

No. 185—Wt. each 8 oz....\$2.20

Extra fluted drills.....Per set .75

Extra fluted drills.....Per dozen 1.05

One in a box.

AUTOMATIC DRILL POINTS**YANKEE**

HALF ACTUAL SIZE

For Yankee Automatic Drills

Set consists of 8 fluted drill points, $\frac{1}{8}$ to $\frac{1}{4}$ inches. Also furnished in separate sizes. Illustrations above are $\frac{1}{2}$ size of actual drill.

Will fit No. 41 and No. 44 drills.

Per set

No. 40P—Wt. per set 1 oz....\$1.20

One set in a round wood box.

Straight Sizes

Size, in.	Per dozen	Size, in.	Per dozen
$\frac{1}{8}$	\$1.50	$\frac{1}{8}$	\$1.50
$\frac{5}{16}$	1.50	$\frac{5}{16}$	1.50
$\frac{3}{8}$	1.50	$\frac{3}{8}$	1.50
$\frac{7}{8}$	1.50	$\frac{7}{8}$	1.50

One dozen in a package.

RECIPROCATING DRILLS**YANKEE****For Metal or Wood**

For drilling in steel, iron, brass and other metals, drill runs continuously to the right on downward or upward motion. Traverse of driver 8 $\frac{1}{2}$ inches. Three jaw chuck, will hold a straight shank drill up to $\frac{1}{2}$ inch. Wood handle. Length 16 inches. Chrome finish.

Each

No. 50—Wt. each 1 lb....\$4.25

One in a box.

MILLERS FALLS**For Metal or Wood**

For drilling steel, iron or brass and other metals, drill travels continuously to the right on downward or upward movement.

Three jaw chuck, for round shank drills 0 to $\frac{1}{4}$ inch. Ball bearing hardwood handle. Length 16 $\frac{1}{2}$ inches.

Each

No. 101—Wt. each 15 oz....\$3.00

One in a box.

PUSH BRACES **YANKEE**



Right and Left Hand Ratchet and Rigid

For boring holes where a brace cannot be used, will bore $\frac{1}{8}$ inch holes in metal and up to $\frac{5}{8}$ inch holes in hardwood. Knurled grip. Hardwood handle. Length closed 16 $\frac{1}{4}$ inches, 23 $\frac{1}{2}$ inches extended. Chrome finish. No drills furnished.

Each
No. 75—Wt. each 1 $\frac{1}{2}$ lbs.\$6.00

One in a box.

REID LIGHTNING



Drives a screw 4 $\frac{1}{2}$ turns at one thrust. Drawn steel twisted rod. Seamless brass tubing. Solid steel chuck, forged high carbon tool steel bit. Lignum vitae top pulleys fastened to tube and drives the brace. Bottom pulley is loose. Hickory hand hold. Length extended 29 inches. Compressed 18 $\frac{1}{2}$ inches.

Each
No. 1—Wt. each 1 lb.\$5.80
One in a box.

SCREW DRIVERS **YANKEE SPIRAL RATCHET**



REGULAR STYLE

Right and Left Hand and Rigid

Drive and draw screws by pushing on the handle or by a ratchet movement, or they can be made rigid as an ordinary screw driver. The movement is changed instantly by a simple shifter. Spindle can be locked closed. Three bits of different sizes furnished with each driver. Chrome plated metal parts, polished hardwood handle.

Standard Pattern

Nos.	Each	Lgth. closed inches	Lgth. extended inches	Wt. ea. lbs.
30A	\$3.50	13	18 $\frac{1}{4}$	1

Heavy Pattern

31A	\$4.30	16 $\frac{3}{4}$	25	1 $\frac{1}{2}$
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One in a box.



REGULAR STYLE

Right and Left Hand and Rigid

Same construction as above Nos. 30A and 31A. Length closed 9 $\frac{1}{2}$ inches, extended 12 $\frac{3}{4}$ inches. Chrome finish.

Light Pattern

Each
No. 35—Wt. each $\frac{5}{8}$ lb.\$2.50
One in a box.

SCREW DRIVERS **YANKEE SPIRAL RATCHET**



QUICK RETURN STYLE

Right and Left Hand and Rigid

Spring pressure keeps blade in screw slot and pushes handle back after each stroke so driver can be used with one hand, if the other is holding work and cannot reach.

Drive and draw screws by pushing the handle or by a ratchet movement, or they can be made rigid as an ordinary screw driver. The movement is changed instantly by a simple shifter. Spindle can be locked closed. Three bits of different sizes furnished with each driver. Chrome plated metal parts, polished hardwood handle.

Standard Pattern

Nos.	Each	Lgth. closed inches	Lgth. extended inches	Wt. ea. lbs.
130A	\$3.75	14 $\frac{1}{4}$	20	1

Heavy Pattern

131A	\$5.00	19 $\frac{1}{4}$	27 $\frac{1}{2}$	1 $\frac{1}{2}$
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Light Pattern

135	\$3.00	10	13 $\frac{1}{4}$	$\frac{5}{8}$
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One in a box.

SCREW DRIVER BITS **YANKEE**



For Use with Yankee Spiral Ratchet Screw Drivers

Made of high grade steel. Each set contains three bits of different widths.

Nos.	Per dozen	Widths of bits, in.	For drivers, Nos.	Wt. per doz., oz.
30B	\$2.75	$\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	30A, 130A	2
31B	2.75	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$	31A, 131A	2
35B	2.75	$\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$	35, 135	1 $\frac{1}{2}$

One set in a box.

YANKEE, WITH SCREW HOLDER



For Use with Yankee Spiral Ratchet Screw Drivers

A longer bit than regular with holder attached to holder screw. When screw is driven in place jaws open as the head of screw sinks into place.

Nos.	Per dozen	Diam. shanks, in.	For Screw Drivers, Nos.
30SH	\$7.00	$\frac{3}{8}$	30A, 130A
31SH	7.00	$\frac{1}{2}$	31A, 131A
35SH	6.00	$\frac{3}{8}$	35, 135

CHUCKS AND DRILLS **YANKEE**



HALF ACTUAL SIZE

For Yankee Spiral Ratchet Screw Drivers

Set consists of 8 fluted drill points and chuck on Nos. 30C and 31C and three drills only on No. 35C

Nos.	Per doz. sets	Size drills, in.	For drivers Nos.	Wt. per doz. sets, lbs.
30C	\$12.00	$\frac{1}{8}$ to $\frac{1}{2}$	30A, 130A	1 $\frac{1}{4}$
31C	12.00	$\frac{1}{8}$ to $\frac{1}{2}$	31A, 131A	1 $\frac{1}{4}$
35C	6.00	$\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$	35A, 135	$\frac{5}{8}$

One set in a wood box.

COUNTERSINKS **YANKEE**



For Use in Yankee Spiral Ratchet Screw Drivers

Nos.	Per doz.	Diam. in.	For drivers Nos.	Wt. per doz., oz.
030	\$3.25	$\frac{3}{8}$	30A, 130A	9
031	3.25	$\frac{1}{2}$	31A, 131A	10
035	3.25	$\frac{3}{8}$	35, 135	8

One dozen in a box.

SCREW DRIVERS **YANKEE MAGAZINE POCKET**



Knurled Magazine Handle

Four detachable cast steel blades of varying widths and thicknesses to fit different size screws. Diameter $\frac{5}{8}$ inch, length closed, 3 inches, extended, 4 $\frac{1}{2}$ inches. Chrome plated finish.

Each
No. 60—Wt. each 2 oz.\$1.00

Twelve in a box.

SCREW DRIVERS YANKEE RATCHET



Right or Left Hand and Rigid

The adjustment for right or left hand is made by pushing shifter to right or left end of slot; when placed midway the blade is held rigid as in ordinary screw drivers.

Forged steel blades, hardwood handle, chrome plated finish trim.

No. 11

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
2	\$ 8.50	4 $\frac{1}{4}$	1 $\frac{1}{4}$
3	10.30	7 $\frac{1}{4}$	3 $\frac{1}{4}$
4	11.00	8 $\frac{1}{4}$	3 $\frac{3}{8}$
5	12.20	9 $\frac{1}{4}$	3 $\frac{1}{2}$
6	13.75	10 $\frac{3}{4}$	5 $\frac{1}{4}$
8	15.50	13	6
10	18.50	15 $\frac{1}{4}$	7 $\frac{3}{8}$



Right or Left Hand and Rigid

Polished steel blade, chrome trim, polished hardwood handle, $\frac{3}{8}$ inch diameter blade. Knurled washer to allow blade to be turned on screw when pressing on handle.

No. 15

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
2	\$ 9.25	4 $\frac{1}{4}$	1 $\frac{1}{4}$
3	9.75	5 $\frac{1}{4}$	1 $\frac{1}{2}$
4	10.00	6 $\frac{1}{4}$	1 $\frac{5}{8}$
5	10.50	7 $\frac{1}{4}$	1 $\frac{3}{4}$



Short, Right or Left Hand and Rigid

Same as No. 11 above except the blade is 1 $\frac{1}{8}$ inches long, $\frac{1}{8}$ inch diameter, 5 $\frac{1}{4}$ inches over all. Used by gunsmiths, electricians, etc.

Per dozen

No. 12—Wt. per doz. 3 $\frac{3}{4}$ lbs. \$12.00

HURWOOD



Regular Pattern

Hot forged blade, shank and head. Blade riveted thru ferrule and fastened to steel washer on top of handle. Black finished handle.

No. 20

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
2 $\frac{1}{2}$	\$ 3.96	6 $\frac{1}{2}$	3 $\frac{1}{4}$
3	4.50	8	1
4	5.00	9	1 $\frac{3}{8}$
5	5.50	10 $\frac{1}{2}$	2 $\frac{1}{4}$
6	6.00	11 $\frac{3}{4}$	2 $\frac{1}{2}$
8	8.00	15	4
10	10.00	17	4 $\frac{1}{4}$
12	11.00	19	4 $\frac{3}{4}$

All above, one-half dozen in a box.

SCREW DRIVERS HURWOOD



Light Weight, Insulated Handle Bolster Type Construction

Hot forged blade and shank, blade fastened to bolster which is in handle. Cannot come apart. Black finished handle.

Used by electricians and auto mechanics.

No. 55

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
1 $\frac{1}{2}$	\$ 3.76	4 $\frac{1}{2}$	$\frac{3}{4}$
2 $\frac{1}{2}$	3.96	6 $\frac{1}{2}$	1 $\frac{1}{4}$
3	4.00	7 $\frac{1}{2}$	1 $\frac{1}{4}$
4	5.00	8 $\frac{1}{2}$	1 $\frac{1}{2}$
5	5.50	9 $\frac{1}{2}$	1 $\frac{1}{2}$
6	6.00	10 $\frac{1}{2}$	1 $\frac{5}{8}$
8	7.00	12 $\frac{1}{4}$	1 $\frac{5}{8}$



Baby

Hot forged blade shank and head. Blade riveted through ferrule and fastened to steel washer in top of handle. Length blade 1 $\frac{1}{2}$ inches, diameter $\frac{1}{8}$ inch, length over all 4 $\frac{1}{2}$ inches. Black finished handle.

Per dozen

No. 21—Wt. per dozen 1 lb. \$3.76



Machinists', Extra Heavy Square Blade

Hot forged blade, shank and head. Blade riveted to ferrule and fastened to steel washer in top of handle. Black finished handle.

Nos.	Per dozen	Lgth. blade, inches	Lgth. over all, inches	Wt. per doz., lbs.
51	\$ 7.20	1 $\frac{1}{4}$	5 $\frac{1}{2}$	4
52	8.40	3 $\frac{1}{2}$	7 $\frac{3}{8}$	7
53	10.00	4 $\frac{1}{2}$	9 $\frac{1}{4}$	10 $\frac{1}{2}$



Double Grip, Hexagon Nut Ferrule

Hot forged blade, shank and head, blade riveted to ferrule and fastened to steel washer in top of handle. Black finished handle. Length blade 9 inches, diameter $\frac{1}{2}$ inch, length over all 18 $\frac{1}{4}$ inches

Per dozen

No. 54—Wt. per doz. 18 lbs. \$30.00

All above, one-half dozen in a box.

SCREW DRIVERS STANLEY STANLOID



Standard Blade and Tip

Forged steel blade with a bolster inserted in handle. Break-proof amber colored, non-metallic fluted handle.

The 8 inch has a nut shaped bolster.

No. 1006

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
4	\$ 9.00	7 $\frac{1}{4}$	3 $\frac{1}{2}$
6	12.00	10 $\frac{1}{4}$	5 $\frac{1}{2}$
8	15.00	13	8



Square Blade

Forged steel blade with a bolster inserted in handle. Break-proof, amber colored non-metallic fluted handle. Blade can be gripped by a pair of pliers for heavy screws.

No. 1007

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
4	\$ 9.60	7 $\frac{1}{4}$	3 $\frac{1}{2}$
6	13.20	10 $\frac{1}{4}$	5 $\frac{1}{2}$
8	16.20	13	8



Electricians' Small Blade

Forged steel blade with bolster inserted in handle. Break-proof, amber colored non-metallic fluted handle. Blade has parallel sided tip.

No. 1008

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
3	\$ 7.20	6 $\frac{1}{4}$	2
6	9.00	9 $\frac{1}{2}$	3 $\frac{1}{4}$



Standard

Tempered steel blade with two ears on shank and pin through ferrule locks blade in handle. Red stained handle.

No. 70

Length blade, in.	Per dozen	Length over all, inches	Wt. per doz., lbs.
2 $\frac{1}{2}$	\$ 2.94	6 $\frac{1}{2}$	1 $\frac{1}{2}$
3	3.16	8	1 $\frac{3}{4}$
4	3.38	9	2 $\frac{1}{4}$
5	3.82	10 $\frac{1}{2}$	3 $\frac{1}{2}$
6	4.14	11 $\frac{3}{4}$	4 $\frac{1}{4}$
8	5.44	15	7
10	6.56	17	7 $\frac{3}{4}$
12	8.68	19	8 $\frac{1}{2}$

All above, one-half dozen in a box.

SCREW DRIVERS STANLEY RADIO



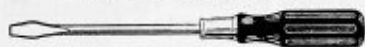
Steel blade, $\frac{5}{16}$ inch diameter, including width of tip, blade held in handle by two ears. Fluted black lacquer finish handle.

No. 177

Length blade, in.	Per dozen	Length over all, in.	Wt. per doz., lbs.
2	\$3.30	5 $\frac{3}{4}$	$\frac{3}{4}$
4	3.80	7 $\frac{3}{4}$	$\frac{3}{4}$
6	4.20	9 $\frac{3}{4}$	1
8	4.80	11 $\frac{3}{4}$	1

One-half dozen in a box.

STANLEY DEFIANCE



Standard

Tempered steel blade, securely fastened in handles by two ears wedged on the shanks. Fluted hardwood handle. Bright orange lacquer finish.

No. 1270

Length blade, in.	Per dozen	Length over all, in.	Wt. per doz., lbs.
3	\$1.10	6 $\frac{3}{8}$	2
4	1.20	8	2 $\frac{3}{4}$
5	1.26	10 $\frac{1}{8}$	7
6	1.36	11 $\frac{1}{8}$	7 $\frac{1}{4}$

One dozen in a box.

ASSORTMENTS



Contains one dozen each No. 1270, 3, 4, 5 and 6 inch screw drivers. Red and black handles.

Per assortment
No. 1278—Wt. per assortment 19 lbs. \$4.80

One assortment in a box.

SCREW DRIVER ASSORTMENTS STANLEY POCKET WITH CLIP



Break and shock proof. 2 inch blade, $\frac{1}{8}$ inch diameter, length over all 4 inches all on an attractive display card.

Per assortment

No. 1010A—Wt. assortment 1 lb...\$3.00

One card in a box.

SCREW DRIVERS CHAMPION



Regular

Tempered forged steel blade, tested to split screw heads. Shank shrunk into a solid malleable bolster fitted in a heavy ferrule. Cherry stained fluted hardwood handle.

No. 201

Length blade, in.	Per dozen	Length over all, in.	Wt. per doz., lbs.
2 $\frac{1}{2}$	\$4.25	6 $\frac{1}{4}$	1 $\frac{1}{2}$
3	5.00	6 $\frac{3}{4}$	2
4	5.25	8 $\frac{5}{8}$	3
5	5.60	10 $\frac{1}{2}$	4
6	6.40	11 $\frac{1}{2}$	4 $\frac{1}{2}$
7	7.35	13 $\frac{1}{2}$	5
8	8.20	14 $\frac{1}{4}$	6 $\frac{1}{2}$
10	10.20	16 $\frac{1}{4}$	8
12	12.15	18 $\frac{1}{4}$	11

One-half dozen in a box.

Cabinet Makers'

Same construction as No. 201 above.

No. 203

Length blade, in.	Per dozen	Length over all, in.	Wt. per doz., lbs.
2 $\frac{1}{2}$	\$4.25	6 $\frac{1}{4}$	1 $\frac{1}{2}$
3 $\frac{1}{2}$	5.00	7 $\frac{3}{4}$	1 $\frac{1}{2}$
4 $\frac{1}{2}$	5.25	8 $\frac{3}{4}$	1 $\frac{3}{4}$
5 $\frac{1}{2}$	5.60	9 $\frac{1}{4}$	1 $\frac{3}{4}$
6 $\frac{1}{2}$	6.40	10 $\frac{1}{4}$	2
8 $\frac{1}{2}$	8.20	12 $\frac{1}{4}$	2 $\frac{1}{4}$
10 $\frac{1}{2}$	10.20	14 $\frac{1}{4}$	2 $\frac{1}{2}$
12 $\frac{1}{2}$	12.15	16 $\frac{1}{4}$	2 $\frac{3}{4}$

One-half dozen in a box.

Special, Short Blade

Same construction as No. 201 above.

No.	112
Length blade, in.	1 $\frac{1}{2}$
Length over all, in.	5 $\frac{1}{4}$
Wt. per dozen, lbs.	3 $\frac{1}{2}$
Per dozen	\$4.25

One-half dozen in a box.

SCREW DRIVERS LENOX



Perfect Handle Pattern

Blade one-piece from handle to tip and forged from one-piece high grade special analysis steel. Hardwood handle in two pieces securely riveted to each side of blade, cannot come off.

Nos.	Per dozen	Length blade, in.	Length over all, in.	Wt. per doz., lbs.
2	\$3.50	2	5 $\frac{1}{4}$	2
2 $\frac{1}{2}$	3.70	2 $\frac{3}{4}$	6 $\frac{1}{4}$	2 $\frac{1}{2}$
3	4.00	3	7 $\frac{3}{8}$	3 $\frac{1}{4}$
4	4.25	4	8 $\frac{3}{8}$	4
5	5.00	5	9 $\frac{3}{8}$	4 $\frac{1}{2}$
6	6.00	6	11 $\frac{1}{4}$	7 $\frac{1}{8}$
7	7.00	7	12 $\frac{1}{4}$	7 $\frac{1}{2}$
8	8.00	8	14 $\frac{1}{8}$	10 $\frac{1}{2}$
10	10.00	10	16 $\frac{3}{8}$	11 $\frac{1}{2}$
12	12.00	12	18 $\frac{3}{8}$	12 $\frac{1}{2}$

One-half dozen in a box.



Machinist Type, Heavy Duty Perfect Handle Pattern

Blade one-piece from handle to tip and forged from one-piece high grade special analysis steel. Hardwood handle in two pieces securely riveted to each side of blade, cannot come off.

Nos.	Per dozen	Length blade, in.	Length over all, in.	Wt. per doz., lbs.
7 $\frac{1}{2}$	\$8.00	3 $\frac{3}{4}$	7 $\frac{1}{2}$	3 $\frac{3}{4}$
9 $\frac{1}{2}$	10.00	5	9 $\frac{1}{2}$	8 $\frac{1}{4}$
10 $\frac{1}{2}$	11.00	5 $\frac{3}{8}$	10 $\frac{1}{2}$	12 $\frac{1}{4}$

One-half dozen in a box.

SCREW DRIVER ASSORTMENTS LITTLE WONDER



Tempered $\frac{1}{8}$ inch diameter steel blade. Mahogany finished handles. Assortment contains four each 1 $\frac{1}{4}$, 2 and 3 inch screw drivers. Attached to display card.

Per assortment
No. 42—Wt. per assortment $\frac{1}{2}$ lb...\$1.20

One assortment in a box.

SCREW DRIVERS

CRESCENT ALL STEEL



For Heavy Work

Forged steel blade hinged in knurled handle, can be turned to right angle position or regular position. Nickel plated finish.

Nos.	Each	Length, blade, in.	Length, over all, in.	Wt. per doz., lbs.
K24	\$0.85	4	7½	4
K26	1.10	6	10	8½

One-quarter dozen in a box.

STARRETT POCKET



Tempered steel blade, held in chuck, fitted in knurled steel tube handle. Nickel plated handle.

Nos.	Each	Extra blades, each	Diam. hdl., in.	Lgth. in.	Wt. oz.
553A	\$0.40	\$0.15	¼	1½	½
553B	.50	.15	¾	3	1¼

One-half dozen in a box.

STARRETT JEWELERS'



Concave Swivel Head

Tempered steel blade, steel tubing nickel plated handle. Swivel head for finger turning.

Nos.	Each	Extra blades, each	Diam. handle, in.	Diam. blade, in.
555AA	\$0.45	\$0.15	¼	.025
555A	.45	.15	¼	.040
555B	.45	.15	¼	.055
555C	.45	.15	¼	.070
555D	.45	.15	¼	.080
555E	.45	.15	¼	.100

No. 555S—Set of six.....\$2.70
Each size one-half dozen in a box.

STARRETT OPTICIANS'



Concave Swivel Head

Tempered steel blade, steel tubing nickel plated handle. Screw holder will pick up and hold small screws.

Two blades to each screw driver.

Nos.	Each	Extra screw holder, each	Extra blades, each	With screw holder
552A	\$0.80	\$0.20	\$0.15	Yes
552B	.60	.20	.15	No.

One-half dozen in a box.

SCREW DRIVERS

MILLERS FALLS RATCHET



For Work in Close Quarters

Right or left hand ratchet action obtained by shifting blade to one side or the other side. Bit ¼ inch wide, length over all 4 inches. All exposed parts nickel plated. Handle and head red and black lacquer.

No. 668—Weight each 3 oz.....\$0.65
One in a box.

STANLEY OFFSET



Carefully hardened and tempered forged steel, ⅝ inch stock. Length 5 inches. Nickel plated finish. Twelve screw drivers on a card.

No. 670A—Wt. per asst. 1½ lbs...\$3.00
One assortment in a box.

SCREW DRIVER BITS

STANLEY



Forged crucible steel, oil tempered and polished. Points accurately machined cross ground to size.

Width tip, in.	Per dozen	Length, in.	Wt. per doz., lbs.
¼	\$2.40	4½	¾
⅜	2.50	4¾	1½
½	2.60	5	1½
¾	2.70	5	1½

One dozen in a box.

AWLS

HURWOOD SCRATCH



Forged steel blade with wings on shank fitted into handle. Black handle.

Nos.	Per dozen	Blade, in.	Over all, in.	Wt. per doz., lbs.
6	\$4.40	2¾	5¾	¾
7	4.80	3¾	6½	1½

One-half dozen in a box.

AWLS

STANLEY SCRATCH



Forged steel blade with wings on shank fitted into handle, orange and black lacquered handle. Length blade 3½ inch, length over all 6½ inches.

No. 1—Wt. dozen 1½ lbs.....\$2.40
One dozen in a box.

PEXTO SCRATCH



Forged steel blade, 5 inches, plain polished wood handle.

No. 1—Wt. per dozen 1¼ lbs.....\$4.00
One dozen in a box.

HURWOOD BRAD



Forged steel blade with wings on shank fitted into handle. Black lacquered handle.

Lgth. blade, in.	Per dozen	Length over all, in.	Wt. per doz., lbs.
1¼	\$4.40	5	1¼
1½	4.40	5¼	1¼

One dozen in a box.

MAYHEW BRAD



Needle Point Type

Hammer forged tool steel blade, 1½ inches long. Mahogany finished hardwood handle. Nickel plated ferrule.

No. 1055—Wt. per dozen 1 lb.....\$2.00
One dozen in a box.

AWL HAFTS

STANLEY PATENT SEWING



Steel Chuck

Hardwood; complete with wrench for tightening chuck.

No. 6½—3¾ in. long; wt. per dozen 1½ lbs.\$3.00
One dozen in a box.

STANLEY PATENT PEGGING



Leather Top, Steel Chuck

Hardwood; complete with wrench for tightening chuck.

No. 6—4 in. long; wt. per dozen 2 lbs.\$3.60
One dozen in a box.

SEWING AWLS SPEEDY STITCHER

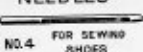


Cut shows bobbin and set of needles inside for mending harness, shoes, auto tops, etc. Maple handle, length without needle 4½ inches. Complete with 4 needles and bobbin of wax thread.

Per dozen
No. 75—Wt. dozen 4 lbs.....\$9.00
One in a carton, six cartons on display easel back case.

EXTRA NEEDLES FOR SPEEDY STITCHER

NEEDLES



Nos.	For	Per dozen
4	Sewing shoes	\$1.50
6	Light harness	1.50
7	Ordinary harness	1.80
8	Heavy harness	1.80
8A	Soling shoes	2.00

EXTRA THREAD FOR SPEEDY STITCHER



BOBBIN WITH



WAXED THREAD

Per dozen skeins
Extra Thread—30 yard skeins.....\$3.00
Per dozen
Extra Bobbins with thread.....\$2.50
One dozen in a box.

AWLS PATENT PEG



Extra cast steel.

Per gross
No. 141—Assorted\$7.20
One gross in a box.

PATENT SEWING, CAST STEEL



Per gross
No. 51—Assorted\$14.40
One-half gross in a box.

AWLS PATENT HARNESS, CAST STEEL



Per gross
No. 55—Assorted\$6.00
One-half gross in a box.

NEEDLES BENT PACKING, POLISHED STEEL



Length, inches	Per dozen	Length, inches	Per dozen
4	\$0.30	7	\$1.00
5	.45	8	1.25
6	.60		

Three dozen in a paper.

UPHOLSTERERS', POLISHED STEEL



Length, inches	Per dozen	Length, inches	Per dozen
8	\$1.25	12	\$1.75
10	1.50		

One dozen in a paper.

MATTRESS, POLISHED STEEL



Single Point

Length, inches	Per dozen	Length, inches	Per dozen
6	\$0.65	10	\$1.20
8	.75	12	1.35

One dozen in a paper.

SAIL, POLISHED STEEL



Triangular Point

Length, inches	Per dozen	Length, inches	Per dozen
2	\$0.25	3½	\$0.50
2½	.35		

Twenty-five in a package.

CURVED UPHOLSTERERS'



Polished Steel Spear Point

Length, inches	Per dozen	Length, inches	Per dozen
4½	\$2.00	6	\$3.50
5	2.50		

One dozen in a package.

NAIL SETS STANLEY



Oval Head Round Shank Knurled

High grade tool steel, hardened both ends, cups are chamfered and oil treated. Head and tips polished, balance blued lacquered finish.

Tips inches	Per dozen	Length inches	Wt. per doz., lbs.
2/32	\$1.50	4	¾
5/64	1.50	4	¾
3/32	1.50	4	¾
4/32	1.50	4	1 ⅛

One dozen in a box.

ASSORTMENTS

Assortment of 12, as follows: 5 each 2/32, 3 each 5/64, 4 each 3/32 inch tips.

Per assortment
No. 11A—Wt. assortment ¾ lb.....\$1.60

Assortment of 24 as follows: 8 each 2/32, 6 each 5/64, 7 each 3/32 and 3 each 4/32.

Per assortment
No. 11B—Wt. assortment 1½ lbs....\$3.20
One assortment in a box.

DEFIANCE ASSORTMENT



Square Head, Round Shank, Knurled

Tempered steel. Blued finish, tips as follows: 1/32, 2/32, 5/64, 3/32, 4/32, 5/32 inch.

Per assortment
No. 1211¼—Wt. dozen 1¼ lbs.....\$1.00
One dozen in a box.

MILLERS FALLS



Square head, round shank, knurled. Tempered steel, 4 inches long.

Nos.	Per dozen	Tips in.	Nos.	Per dozen	Tips in.
451	\$1.50	1/32	453	\$1.50	3/32
452	1.50	2/32	454	1.50	4/32

One dozen in a box.

MAGNETIC BRAD SET



For putting brads in corners, outside shell has spring returns, point is magnetized to hold brads.

Length over all 6 inches.
Each
No. 17—Wt. each 2 oz.....\$2.00

MACHINISTS' SCRIBERS STARRETT IMPROVED



With Adjustable Points

Knurled body of sufficient diameter and size not to cramp fingers, tempered fine grade steel points. Length with long bent point 12 inches, with short bent point 9 inches.

Nos.	Each	Bent points furnished
67	\$0.60	Long and short
67A	.45	Short only
Six in a box.		

EXTRA POINTS

Kind	Each
Straight	\$0.15
Short Bent	.15
Long Bent	.20

STARRETT ADJUSTABLE SLEEVE



Knurled sleeve nickel plated. Sleeve has a clamping device on one end, adapting it for slipping on or off different tools, securely holding them near to or away from the working point.

Furnished without knife points.

Nos.	Each	Length, in.
68A	\$0.60	8
68B	.60	12

Six in a box.

EXTRA POINTS

Kind	Each
Knife	\$0.20
Scriber	.20

STARRETT POCKET



Hexagon Head Prevents Rolling

Knurled body, best steel scriber, tempered and held by knurled nut.

Nos.	Each	Handle diam., in.	Blade length, in.
70A	\$0.35	1/4	2 3/8
70B	.50	3/8	2 7/8

Six in a box.

SCREW HOLE PUNCHES SHARP SHOOTER



A new tool for carpenters, cabinet makers, sheet metal workers and ship builders. Drives holes for screws straight and central, hardened tool steel plunger, screw stock body, knurled two-thirds of its length, polished ends.

Nos.	Each	Size	Length, in.
1	\$0.25	Junior	2 1/2
2	.30	Medium	3
3	.35	Heavy	4

One dozen in a display box.

SCRIBE AWLS



Tinners'

Made of 1/4 inch diameter octagon tool steel, long taper with sharp point. Length over all 8 inches.

Per dozen

No. 100—Wt. per dozen 1 1/2 lbs.\$6.00

One dozen in a box.

CENTER PUNCHES STARRETT ADJUSTABLE AUTOMATIC



Automatically Strikes a Blow of Any Required Force

Adjustable point, delivers a light or heavy blow. All indentations being of uniform size for the starting of the drill.

Nos.	Each	Extra points	Length, inches	Diam., inch
18AA	\$1.80	\$0.20	3 1/2	3/8
18A	2.40	.20	5	1/2
18B	3.00	.20	6	5/8

One in a box.

STARRETT SQUARE



Knurled Body

Made of tool steel tempered entire length of body. Square body keeps them from rolling. Specially adapted to light tool makers' work.

Nos.	Each	Diam. points, in.	Length, inches	Wt. each, oz.
261A	\$0.25	1/8	2 3/4	1 1/2
261B	.25	3/16	3 3/8	3/4
261C	.25	1/4	3 5/8	1
261D	.25	3/8	3 7/8	1 1/4
261E	.35	1/2	4 1/4	1 1/2
261F	.35	5/8	4 1/2	2
261G	.40	3/4	5 1/2	2 1/2

Sizes A to F, twelve; size G, six in a box.

STARRETT, ROUND BODY



Actual size of points.

Knurled body. Made of tool steel hardened.

Nos.	Each	Diam. points, in.	Length, inches	Wt. each, oz.
117A	\$0.25	1/8	4	7/8
117B	.25	3/16	4	1
117C	.25	1/4	4	1
117D	.25	3/8	4	1 3/4
117E	.30	1/2	5	2

Six in a box.

CENTER PUNCHES MAYHEW



Round Knurled Body

Chrome nickel steel hammer forged. Points ground to correct angle for hard use.

Nos.	Per dozen	Diameter stock, in.	Length, inches	Wt. per doz., lbs.
491A	\$3.75	3/8	6	2 1/4
491B	3.75	1/2	6	3 3/8

One dozen in a box.



Octagon Plain Body

Made of alloy steel, tempered points. Black body.

Nos.	Per dozen	Diameter stock, in.	Length, inches	Wt. per doz., lbs.
415	\$1.85	3/8	4	1 1/2
416	3.10	1/2	5	3 1/2

One dozen in a box.

PRICK PUNCHES MAYHEW



Round Knurled Body

Chrome nickel steel hammer forged, points correctly headed.

Nos.	Per dozen	Diameter stock, in.	Length, inches	Wt. per doz., lbs.
492A	\$3.75	3/8	6	2
492B	3.75	1/2	6	3 3/8

One dozen in a box.



Round Knurled Body, Square Head

Alloy steel, hammer forged. Diameter of stock 3/8 inch, length 4 inches.

Per dozen
No. 439—Wt. per dozen 1 lb.\$1.90

One dozen in a box.



Octagon Plain Body

Made of alloy steel, tempered points, black body. Diameter of stock 3/8 inch, length 4 inches.

Per dozen
No. 410—Wt. per dozen 1 1/4 lbs.\$1.90

One dozen in a box.

SOLID PUNCHES MAYHEW



Round Knurled Body

Chrome nickel steel, hammer forged.

Length 6 inches.

Nos.	Per dozen	Diam. stock, in.	Diam. point, in.	Wt. per doz., lbs.
490A	\$3.75	3/8	3/32	2 1/4
490B	3.75	3/8	4/32	2 1/4
490C	3.75	3/8	5/32	2 1/4
490D	3.75	3/8	6/32	2 1/4
490E	3.75	3/8	7/32	2 1/4
490F	3.75	1/2	8/32	3 3/8
490G	3.75	1/2	10/32	3 3/8
490H	3.75	1/2	12/32	3 3/8

One dozen in a box.

PIN PUNCHES MAYHEW



Round Knurled Body

Chrome nickel steel, hammer forged.

Length 6 inches.

Nos.	Per dozen	Diam. stock, in.	Diam. point, in.	Wt. per doz., lbs.
493A	\$3.75	3/8	3/32	2 1/4
493B	3.75	3/8	4/32	2 1/4
493C	3.75	3/8	5/32	2 1/4
493D	3.75	3/8	6/32	2 1/4
493E	3.75	3/8	7/32	2 1/4
493F	3.75	1/2	8/32	3 3/8
493G	3.75	1/2	10/32	3 3/8
493H	3.75	1/2	12/32	3 3/8

One dozen in a box.

MAYHEW IN SETS



Octagon Plain Body

Alloy steel tempered points.

The straight points are long enough to drive the most refractory pin clear out without sticking the punch. Especially designed for use by automobile repair men. Four punches in a set. Length 6 inches.

Set Nos.	Per set	Diam. stock, in.	Diameter points, in.	Wt. per set, lbs.
412	\$0.85	3/8	3/32, 4/32, 5/32, 6/32	3/4
411	.95	1/2	6/32, 8/32, 10/32, 12/32	1

One set in a box.

PIN PUNCHES STARRETT



Round Knurled Body, Extra Long

Made of tool steel, hardened and polished.

For machine shop and auto repair shop use. For driving out cotter pins, etc.

Length over all 8 inches, length of shank 3 1/2 inches, length of knurled body 4 1/2 inches.

Nos.	Each	Diam. stock, inch	Diam. point, inch	Wt. each, oz.
248A	\$0.35	1/8	3/16	3
248B	.35	1/8	1/4	3 1/2
248C	.35	1/8	3/8	4
248D	.35	1/8	1/2	4 1/2
248E	.35	1/8	3/4	5

Six in a box.

DRIFT PINS



Straight Taper Pattern

Hand forged tool steel. Natural finish.

No. 141

Size, in.	Each	For rivets, inch	Wt. each, oz.
1/8	\$0.30	1/8	4
1/4	.30	1/4	8
3/8	.30	3/8	12
1/2	.35	1/2	17
3/4	.40	3/4	23

Open stock.

ARCH PUNCHES



Made of alloy steel. Used for cutting canvas, felt, leather, sheet lead, soft brass, copper sheets and other soft materials.

No. 27

Size, in.	Each	Wt. ea., oz.	Size, in.	Each	Wt. ea., lbs.
1/8	\$0.85	5	1 1/4	\$1.90	1 1/2
1/4	.90	5 1/2	1 1/2	2.00	1 3/4
3/8	.95	10	1 3/4	2.10	1 3/4
1/2	1.00	10	1 3/8	2.25	1 3/4
5/8	1.10	12	1 1/2	2.45	1 3/4
3/4	1.20	12	1 1/2	2.75	1 3/4
7/8	1.25	13 1/4	1 3/4	2.90	1 3/4
1	1.30	13 1/4	1 3/4	4.35	2
1 1/8	1.35	13 1/4	1 3/4	4.50	2
1 1/4	1.45	16 1/2	2	5.00	2 1/4
1 1/2	1.70	17 1/2	2 1/4	5.50	2 1/4
1 3/4	1.75	17	2 1/4	6.00	2 3/4

1/8 to 1 inch, two in a box; 1 1/4 to 2 1/4 inches, one in a box.

METAL PUNCHES



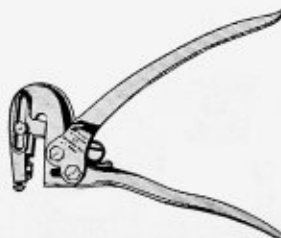
Forged steel, tempered for cutting all kinds of soft sheet metals, also sheet steel up to 3/32 inch thick.

No. 25

Size, in.	Per dozen	Wt. per doz., lbs.	Size, in.	Per dozen	Wt. per doz., lbs.
1/2	\$8.50	3	3/8	\$15.00	7
3/4	12.00	4 1/4	1	17.00	10
1	13.50	5 1/2			

One-sixth dozen in a box.

HAND METAL PUNCHES SAMSON



Tool steel punch, case hardened screws. Will punch untempered metals up to 20 gage or any thickness of paper or leather up to size of throat of punch, depth of throat 1 3/8 inches.

3/8 inch punch and die furnished in punch unless otherwise ordered.

Length of punch 7 inches.

No. 1S—With one punch and die:

wt. each 15 oz.\$3.50

One in a box.

EXTRA PUNCHES AND DIES

Sizes 3/32, 1/8, 3/16, 1/4, 5/16 and 3/8 inch.

Per unit

No. 1PD—Unit of one punch and one die\$0.75

Note—Always state size of punch.

WHITNEY



Main parts drop forged tool steel. Length 23 inches, depth of throat 1 1/2 inches. Capacity 1/4 inch hole through 1/4 inch iron. Unless otherwise specified 1/4 inch punch and die sent with punch.

No. 2—Wt. each 13 lbs.\$15.00

EXTRA PUNCHES AND DIES

3/32 to 1/2 inch by 1/4 inch.

No. 2PD\$0.60

Note—Always state size of punch.

HAND METAL PUNCHES

HYRO HAND



Drop forged steel frame. Very powerful, will punch holes up to 1/4 inch diameter in

14 gage steel. Length 8 inches, over all depth of throat 1 1/4 inches, with gage in position 1 inch. Spacing between die and punch 1/8 inch.

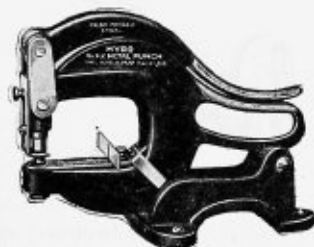
Punch and dies furnished 1/2, 3/8, 1/2, 5/8, 3/4, 1 1/4 inch.

No. OX—Wt. each 2 1/2 lbs. Each \$5.90

Extra punches and dies.25

One in a steel case.

HYRO HAND AND BENCH



Can be used as a hand or bench punch. Drop forged steel frame, will punch 1/4 inch hole in 14 gage, 3/8 inch hole in 16 gage, 1/2 inch hole in 18 gage sheet steel.

Throat 3 1/2 inches deep, 2 1/8 in. high.

Equipped with anyone of following dies and punches: 1/4, 5/8, 1/2, 3/4, 1/4, 5/8, 3/4, 1 1/4, 3/4, 1 1/4, 1 1/2 and 1 1/2 inch.

No. XX—Wt. each 5 lbs. Each \$8.50

Extra punches and dies.40

Note—Specify size when ordering.

SCREW PUNCHES



With One Punch and One Die

When ordering, state size of hole to be punched. For boilermakers' and for use in structural work. Punch frames are made of highest grade steel castings.

Nos.	Each	Punch hole, in.	Thick-ness, stock, in.	Depth throat, in.	Wt. lbs.
0	\$24.00	1/2	1/4	1 1/2	15
1	30.00	1/2	3/8	1 1/2	27
2	40.00	3/4	1/2	2	40
3	60.00	3/4	3/4	2 1/2	62

EXTRA PUNCHES AND DIES

Punch For Nos.	For punch No.	Ea.	Die Nos.	For punch No.	Ea.
100	0	\$1.75	200	0	\$1.75
102	1 & 2	2.00	202	1 & 2	2.00
103	3	2.50	203	3	2.50

SPRING PUNCHES

WM. JOHNSON



Single Drive Tube

Forged steel, hardened tubes drilled to clear nicely from back, flat steel spring. Length 8 inches.

No. 239—Assorted tubes 2 to 10/32 in.; wt. dozen 5 1/4 lbs. \$9.00

Extra Tubes 1.80

One-half dozen in a box.



Four Revolving Tubes

Forged steel, hardened tubes drilled to clear nicely from back. Flat steel spring. Length 8 inches.

No. 224—Nos. 4, 6, 8, 10 tubes; wt. per dozen 9 lbs. \$13.00

Extra Tubes 1.80

One-half dozen in a box.



Six Revolving Tubes

Forged steel, hardened tubes drilled to clear nicely from back. Flat steel spring. Length 8 inches.

No. 225—Nos. 2, 4, 6, 7, 8, 10 tubes; wt. per dozen 9 lbs. \$16.00

Extra Tubes 1.80

One-half dozen in a box.

KRAEUTER



Six Revolving Tubes

Forged steel, hardened steel tubes, flat steel springs. Knurled handles. Length 8 3/4 inches. Size of tubes 1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2 inch.

No. 19—Wt. each 13 oz. Each \$1.95

One-half dozen in a box.

SADDLERS' PUNCHES

PEXTO



Forged Steel, Full Polished

Nos.	Per dozen	Size hole, inch	Wt. per doz., lbs.
1	\$3.00	1/8	1 1/8
2	3.00	3/8	1 1/8
3	3.00	1/2	1 1/8
4	3.00	5/8	1 1/8
5	3.00	3/4	1 1/8
6	3.00	7/8	1 1/8
7	3.50	1	1
8	3.50	1 1/8	1
9	3.50	1 1/4	1
10	4.30	1 1/2	1 1/4
11	4.30	1 3/4	2
12	4.30	2	2
13	7.10	2 1/4	2 1/8
14	7.10	2 1/2	2 1/4

One dozen in a box.

TICKET PUNCHES



Cast steel, hardened dies, wire coil spring, punches card 1/4 inch from edge. Length 4 1/2 inches. Nickel plated.

No. 11—Wt. per dozen 3 lbs. Per dozen \$15.00

One-half dozen in a box.



Cast steel, hardened dies, coil spring, punches card 2 1/4 inches from edge, length 6 1/2 inches. Nickel plated finish.

No. 23—Wt. per dozen 6 1/2 lbs. Per dozen \$30.00

One in a box.

BRIDGEPORT



With Reservoir

Sheet steel, reservoir holds clippings. Knurled handles 5 inches long. Coil spring nickel plated.

No. 32—Wt. per dozen 2 1/4 lbs. Per dozen \$4.00

One-half dozen in a box.

STEEL LETTERS AND FIGURES



Machine Made

Roman characters, forged steel.

Figures consists of 0 to 8, 6 is used as No. 9.

Letters consist of 28 characters and a period.

Figures			Letters		
Size, in.	Per set	Wt. per set, lbs.	Per set	Wt. set, lbs.	
1/8	\$1.50	1 1/2	\$4.50	1	
3/16	1.50	1 1/2	4.50	1 1/4	
1/4	1.50	1 1/2	4.50	1 1/2	
5/16	1.75	1	5.25	2 3/8	
3/8	2.00	1	6.00	2 3/8	
1/2	2.50	1 1/4	7.50	3 1/4	
5/8	3.00	1 1/8	9.00	4 7/8	
3/4	3.50	2 3/8	10.50	6 1/4	
7/8	4.25	2 3/4	12.75	7	
1	4.75	2 3/4	14.25	7	

One set in a box.

SEPARATE LETTERS AND FIGURES

Size, in.	Each	Size, in.	Each
1/8	\$0.25	1/4	\$0.35
3/16	.25	5/8	.40
1/4	.25	3/4	.50
5/16	.30	7/8	.55
3/8	.30	1	.65

RIVET SETS

PEXTO TINNERS



Forged steel, full polished.

Sizes	Each	Wt. per doz., lbs.	Copper rivets, No.	Iron rivets, lbs.
00	\$1.05	10 1/2	.....	14
0	1.05	10 1/4	5	10, 12
1	.90	6 3/4	6	7, 8
2	.90	6 3/4	7	6
3	.70	5	8	4, 5
4	.70	5	9	2 1/2, 3
5	.65	5	10, 11	1 3/4, 2
6	.65	2 3/4	12	1 1/2

No. 00 to 2, two; balance six in a box.

LACE LEATHER CUTTERS



Steel blade and gage. Black enameled body.

Per dozen
No. 1—Cuts 1/8 to 3/4 in. widths...\$7.50

ROTARY HACK SAWS



Cuts outside diameter of iron pipe or conduit 3/4 to 4 inch, 9 sizes, 1/2 inch blade depth.

Each

No. 2B—Wt. ea. 3 1/4 lbs.\$13.50

Extra Blades

Dia., in.	Each	Dia., in.	Each
3/4	\$0.18	2 1/2	\$0.26
1	.18	3	.35
1 1/4	.21	3 1/2	.35
1 1/2	.21	4	.35
2	.26		

Cuts outside diameter of iron pipe or conduit 1/2 to 2 inch, 6 sizes 1/2 inch blade depth.

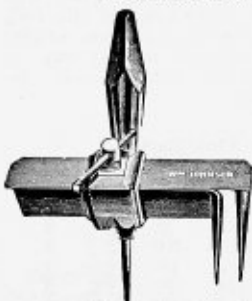
Each

No. 4B—Weight each 1 1/4 lbs.\$7.00

Extra Blades

Dia., in.	Each	Dia., in.	Each	Dia., in.	Each
1/2	\$0.18	1	\$0.18	1 1/2	\$0.21
3/4	.18	1 1/4	.21	2	.26

WASHER CUTTERS



Polished steel frame, hardened steel cutters.

Will fit any brace.

Blade tightened by strong screw clamp.

Nos.	Per dozen	Cuts washers up to, in.	Wt. per doz., lbs.
352	\$1.50	6	3 3/4
353	1.50	8	8 1/2

One-half dozen in a box.

HARGRAVE



Cuts inside and outside at one time.

Each
No. 407—Weight each 3/4 lb.\$2.25
One-sixth dozen in a box.

HARGRAVE DOUBLE HANDLE



With Graduated Scale
Cuts 4 to 20 inches.

Japanned malleable iron body, tool steel blades. Hardwood handle.
Each
No. 411—Weight each 1 1/4 lbs.\$2.75
One in a box.

CIRCLE METAL CUTTERS

HARGRAVE



Graduated Scale

Cuts holes in sheet metal, etc. Capacity 1 1/4 to 5 inch diam., 1 inch deep.

Each
No. 1406—Wt. each 1 lb.\$3.50
One in a box.

BEARING SCRAPERS

ENGINEERS'



Forged tool steel, tempered and polished. Flat ground.

Set consists of one each: 8, 10, 12 and 14 inch half round scrapers.

One 6 inch three-square scraper, one 12 inch double end scraper.

Per set
No. 1—Weight per set 5 lbs.\$5.25

One set in a box.

GOODELL-PRATT



Hardened forged steel blades. Manog-any finished handle.

Nos.	Each	Cutting edge, in.	Length over all, in.
581	\$0.60	1 1/2	8
381	.80	2 1/2	10
382	1.00	3 1/2	11
383	1.10	4 1/2	12

Six in a box.

ENGINEERS' PACKING TOOLS



High Grade Steel, Nickel Plated

Nos.	Per set	Tools in set	Tool Nos.	Wt. per set, oz.
1P	\$1.60	4	6, 10, 12, 14	4
6P	2.60	6	6, 8, 10, 12, 14, 18	8

Note—Set illustrated is No. 1P.

One set in a box.

IRON PLANES

BAILEY BENCH, ADJUSTABLE



Smooth



Jack, Fore and Jointer

Japanned iron frame; polished face and sides; tempered steel cutter; adjustable endwise and sidewise; rosewood handle and knob.

With Flat Bottom

Nos.	Each	Style	Lth., in.	Cutter, in.	Wt. ea., lbs.
1	\$3.70	Smooth	5½	1¼	1¼
2	3.80	Smooth	7	1½	2½
3	3.80	Smooth	8	1¾	3½
4	3.90	Smooth	9	2	3¾
4½	4.80	Smooth	10	2½	5
5	4.40	Jack	14	2	5
5¼	4.10	Jack	11½	1¾	3¾
5½	5.60	Jack	15	2½	6
6	6.20	Fore	18	2¾	7
7	7.60	Jointer	22	2¾	8
8	8.80	Jointer	24	2¾	9½

One in a box.



Smooth



Jack, Fore and Jointer

Japanned iron frame, polished face and sides, tempered steel cutter, adjustable endwise and sidewise, rosewood handle and knob.

With Corrugated Bottom

Nos.	Each	Style	Lth., in.	Cutter, in.	Wt. ea., lbs.
3C	\$4.00	Smooth	8	1½	3½
4C	4.10	Smooth	9	2	3¾
4½C	5.10	Smooth	10	2½	4¾
5C	4.60	Jack	14	2	4¾
5½C	5.90	Jack	15	2½	3¾
6C	6.50	Fore	18	2¾	6¾
7C	7.90	Jointer	22	2¾	7¾
8C	9.20	Jointer	24	2¾	9¼

One in a box.

IRON PLANES

STANLEY "BED ROCK" BENCH ADJUSTABLE



Smooth



Jack, Fore and Jointer

The bottom of the frog is machined so as to make a tongue which fits into a groove formed in the bottom of the plane, this insures great solidity and perfect alignment between the frog and the bottom.

The movement of the frog in the groove for widening or opening the throat and the loosening or tightening of the frog to the base is governed by screw adjustment operated without moving cap or cutter. Rosewood handle and knob. Japanned iron frame.

With Flat Bottom

Nos.	Each	Style	Lth., in.	Cutter, in.	Wt. ea., lbs.
603	\$4.00	Smooth	8	1¾	3½
604	4.10	Smooth	9	2	4
605	4.60	Jack	14	2	5
606	6.50	Fore	18	2¾	7
607	7.90	Jointer	22	2¾	8
608	9.20	Jointer	24	2¾	10

One in a box.

ADJUSTABLE STEEL PLANES

STANLEY



Smooth



Jack

Similar in design to Bailey plane but with a pressed steel bottom and malleable iron frog and lever cap. Rosewood handle and knob.

With Flat Bottoms

Nos.	Each	Style	Lth., in.	Cutter, in.	Wt. ea., lbs.
S4	\$5.30	Smooth	9	2	3½
S5	6.00	Jack	14	2	4

One in a box.

IRON PLANES

DEFIANCE BENCH, ADJUSTABLE



Smooth



Jack

For household use.

Japanned iron frame, double plane iron tempered tool steel cutter, ground sides and bottoms. Red hardwood handle and knob.

With Flat Bottom

Nos.	Each	Style	Lth., in.	Cutter, in.	Wt. ea., lbs.
1203	\$1.70	Smooth	8	1¾	3
1204	1.90	Smooth	9	2	3½
1205	2.20	Jack	14	2	4½

DEFIANCE BENCH, NON-ADJUSTABLE

Smooth



For household use. Japanned iron frame, single plane iron and bottom. Red hardwood handle and cap. Length 9 inches, cutter width 1¼ inches.

Each
No. 1213—Wt. each 1¾ lbs.\$1.00

BLOCK PLANES

DEFIANCE NON-ADJUSTABLE



For household use. Japanned iron frame, tempered steel cutter, lever cap, sides polished. Black hardwood handle. Length 7 inches, cutter width 1¼ inches.

Each
No. 1247—Wt. each 1¾ lbs.\$0.60

DEFIANCE, ADJUSTABLE



For household use. Japanned iron frame. Adjustable endwise by means of steel screw, tool steel cutter, ground sides and bottom. Black hardwood handle. Length 7 in., cutter width 1½ in.

Each
No. 1220—Wt. each 1½ lbs.\$1.10

All above, one in a box.

IRON BLOCK PLANES

STANLEY

Non-Adjustable

Japaned iron frame and trimmings, tempered steel cutters, boss finger rest on plate. Length 3½ inches, cutter 1 inch.

No. 101—Wt. each ¼ lb. \$0.46

Adjustable

Japaned iron frame and trimmings. Cutter adjustable endwise by a lever. Bottom milled and ground, boss finger rest on plate. Tempered steel cutters. Length 5½ inches, cutter 1½ inch.

No. 103—Wt. each ¾ lb. \$1.00



Adjustable

Japaned iron frame. Cutter adjusted endwise by lever. Bottom and sides milled and ground. Tempered steel cutters. Rosewood knob. Length 7 inches, cutter 1½ inches.

No. 120—Wt. each 1½ lbs. \$1.50



Non-Adjustable

Japaned iron frame. Bottom and sides are milled and ground. Tempered steel cutters. Nickel plated lever cap. Rosewood knob.

Length 7 inches, cutter width 1½ inches.

No. 110—Wt. each 1½ lbs. \$1.00



Adjustable

Japaned iron frame. Cutter adjusted endwise by lever. Bottom and sides milled and ground. Tempered steel cutter. Rosewood knob.

Length 7 inches, cutter width 1½ inches.

No. 220—Wt. each 1¼ lbs. \$1.50

All above, one in a box.

IRON BLOCK PLANES

STANLEY BAILEY PATTERN

Adjustable

Japaned iron frame and trimmings; tempered steel cutter at 20 degree angle, adjustable endwise and side-wise; throat adjustable for coarse or fine work. Ground bottom and sides. Length 6 inches, cutter width 1½ in.

No. 9½—Wt. each 1½ lbs. \$2.00



Adjustable

Japaned iron frame. Nickel plated trimmings; tempered steel cutter at 20 degree angle, adjustable endwise and side-wise; throat adjustable for coarse or fine work. Ground bottom and sides.

Nos.	Each	Length, inches	Width of cutter, inches	Wt. each, lbs.
16	\$2.60	6	1½	1½
17	2.90	7	1½	1½



Adjustable Knuckle Joint

Japaned iron frame, nickel plated trimmings, tempered steel cutter. Knuckle joint in the cap makes it a lever, placing cap in position; clamps cutter securely to seat. Angle adjustable endwise and side-wise, ground bottom and sides.

Nos.	Each	Length, inches	Width of cutter, inches	Wt. each, lbs.
18	\$2.70	6	1½	1½
19	3.00	7	1½	1½

STEEL BLOCK PLANES

STANLEY



Adjustable, Knuckle Joint

Steel frame and front, tempered steel cutter. Knuckle joint in the cap makes it a lever, placing cap in position; clamps cutter securely to seat. Angle adjustable endwise and side-wise; ground bottom and sides.

Length 6 inches, cutter width 1½ inches.

No. S18—Wt. each 1¼ lbs. \$3.70

All above, one in a box.

IRON BLOCK PLANES

STANLEY LOW ANGLE

Adjustable, Knuckle Joint



Japaned iron frame, nickel plated trimmings, tempered steel cutter at 12 degree angle. Knuckle joint in the cap makes it a lever cutter, adjusted endwise by means of adjusting screw; ground sides and bottom. Length 7 inches, cutter width 1½ inches.

No. 65—Wt. each 1½ lbs. \$3.00

STANLEY DOUBLE END



Adjustable

Japaned iron frame and trimmings. Tempered steel cutters adjustable endwise. Ground bottom and sides. Rosewood knob.

Two mouths and a reversible cutter seat. Converted into a bull nose plane by throwing over the adjusting screw, reversing cutter seat.

Length 8 in., cutter width ½ inch.

No. 131—Wt. each 1½ lbs. \$2.90

STANLEY BLOCK AND RABBIT

Adjustable



Japaned iron frame, nickel plated trimmings. A detachable side changes it from a block plane to a rabbit plane. Tempered steel skew cutter adjustable endwise, bottom and sides ground and milled. Rosewood handle. Length 7 inches, cutter width 1½ inches.

No. 140—Wt. each 1½ lbs. \$2.60

STANLEY LOW ANGLE



Adjustable

Japaned iron frame. Cutter at 12 degree angle and adjusted endwise by adjusting screw. Tempered steel cutter, ground bottom and sides.

Japaned Frame and Trimmings

Nos.	Each	Length, inches	Width of cutter, inches	Wt. each, lbs.
60½	\$2.20	6	1½	1½
65½	2.50	7	1½	1½

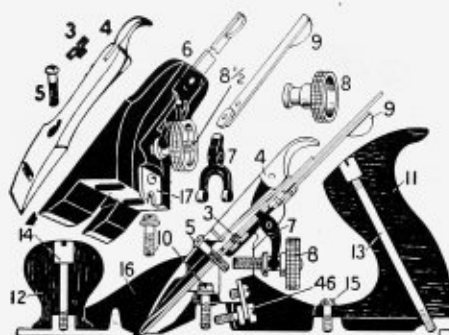
Japaned Frame, Nickel Plated Trimmings

No.	Each	Length, inches	Width of cutter, inches	Wt. each, lbs.
60	\$2.50	6	1½	1½

All above, one in a box.

EXTRA PARTS FOR STANLEY PLANES

FOR BAILEY IRON PLANES

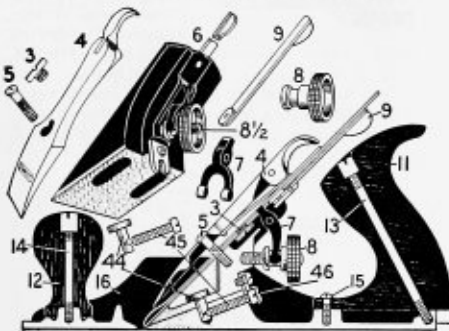


Old Style Frog



New Style Frog

FOR BED ROCK IRON PLANES

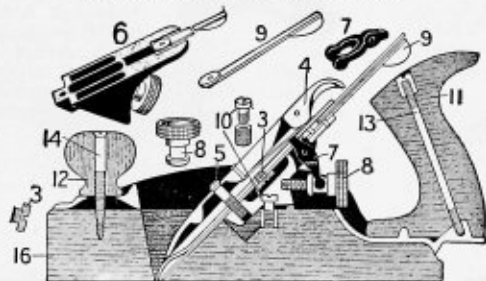


Old Style Frog

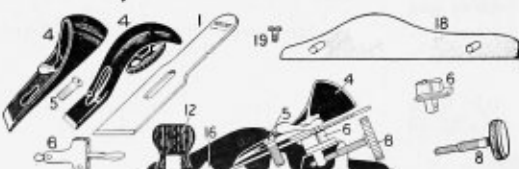
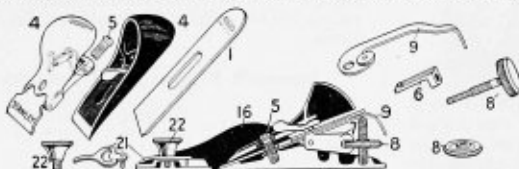


New Style Frogs

FOR BAILEY WOOD PLANES



FOR STANLEY BAILEY AND STANLEY BLOCK PLANES



FOR BAILEY IRON PLANES

[illegible]

Cap for No. 5 Plate. It will also help us if you will include with your order a rough sketch or tracing of the part desired.

FOR BED ROCK IRON PLANES

[illegible]

Add 10 per cent. for Corrugated Bottoms

In ordering be sure to specify number and name of Part and number of Plane, thus: No. 4 Lever Cup for No. 604 Plane. It will help us if you will include with your order a sketch or ~~drawing~~ of the part desired.

FOR BAILEY WOOD PLANES

No.	Name of Part	No. of Pine	22	28	35	26	27½	28	31	32	36
3	Cap Screw.....	\$0.10									
4	Lever Cap .....	.40									
5	" " Screw.....	.60									
6	Frog Complete.....	.60									
7	V- Adjusting Lever.....	.10	<i>Price is the same for all numbers. Specify size of Pine for which part is wanted.</i>								
8	Adjusting Nut.....	.20									
9	Lateral Adjusting Lever.....	.20									
10	Frog Screw and Bushing.....	.40									
11	Pine Handle.....		\$0.30	\$0.30	\$0.50	\$0.30	\$0.20	\$0.30	\$0.30	\$0.30	\$0.50
12	" Knob.....	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
13	Handle Bolt and Nut.....	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
14	Screw.....	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
16	Pine Basting.....	\$0.30	\$0.40	\$0.60	1.00	1.60	1.40	1.60	1.70	1.00	1.00
17	Top Casting.....	.40	.60	.90	.80	.40	.40	.40	.40	.40	.40

FOR STANLEY BAILEY AND STANLEY BLOCK PLANES

[illegible]

Add 30 per cent. for Bottom, for Plane A1E.
Add 10 per cent. for Bottom, for Plane S1E.

[illegible]

IRON PLANES

STANLEY BULL NOSE RABBIT

Adjustable

Japanned iron frame and lever; polished bottom, tempered steel cutter. For working in close corners and other difficult places. Throat can be adjusted for coarse or fine work.

Length 4 inches, width cutter $1\frac{1}{8}$ inch.

Each
No. 75—Wt. each $\frac{3}{4}$ lb. \$0.80

STANLEY SIDE RABBIT



No. 98

Right Hand.



No. 99

Left Hand.

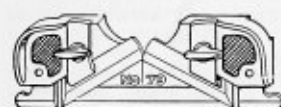
Ground sides and bottoms.

Nickel plated iron frame, tempered steel cutter, fitted with depth gage. Rosewood handle.

For side rabbeting in trimming dados, mouldings, and grooves of all kinds.

Reversible nose piece allows working in corners.

Nos.	Each	Lgth. in.	Width of cutter, in.	Wt. per doz. lbs.
98	\$2.30	4	$\frac{1}{2}$	$\frac{1}{2}$
99	2.30	4	$\frac{1}{2}$	$\frac{1}{2}$



Right and left hand nickel plated frame, tempered steel cutters

fitted with depth gage.

For side rabbeting in trimming dados, mouldings and grooves. Reversible nose allows working in close quarters.

Length $5\frac{1}{2}$ inches, cutter width $\frac{1}{2}$ in.

Each
No. 79—Wt. each 1 lb. \$2.40

STANLEY CABINET MAKERS RABBIT



Bull Nose Pattern

Nickel plated iron frame. Tempered steel cutter, throat adjustable for fine or coarse work. Cutters adjustable endwise, front can be removed to make a chisel plane, lies flat either side. For fine cabinet work. Length 4 inches, cutter width 1 inch.

Each
No. 90—Wt. each $1\frac{1}{2}$ lbs. \$4.50

All above, one in a box.

IRON PLANES

STANLEY BENCH RABBIT



Regular Style

Japanned malleable iron frame, tempered steel cutters adjustable endwise and side-wise. Ground bottom and sides. Rosewood handle and knob.

Smooth and Jack.

Nos.	Each	Kind	Lgth. in.	Width of cutter, in.	Wt. each lbs.
10 $\frac{1}{2}$	\$6.00	Smooth	$9\frac{1}{4}$	$2\frac{1}{8}$	$3\frac{1}{4}$
10	7.20	Jack	13	$2\frac{1}{8}$	$4\frac{1}{4}$

STANLEY RABBIT



With Adjustable Depth Gage

Japanned iron frame, nickel plated trimmings. Tempered steel cutters. Fitted with spur and adjustable depth gage.

These planes will lie perfectly flat on either side and can be used with either right or left hand while planing into corners or up against perpendicular surfaces.

Nos.	Each	Lgth. in.	Width of cutter, in.	Wt. each lbs.
190	\$2.10	8	$1\frac{1}{2}$	$2\frac{1}{4}$
191	2.10	8	$1\frac{1}{4}$	$2\frac{1}{4}$
192	2.10	8	1	2

STANLEY DUPLEX, FILLETSTER AND RABBIT



With Depth Gage and Adjustable Fence

Japanned iron frame, nickel plated trimmings. Tempered steel cutter. Fitted with spur and adjustable depth gage.

This plane has two seats for the cutter, one for regular work and the other where a bull-nose is required. The adjustable fence can be used on either side and slides under the bottom, regulating the width of the cut. To work same as a rabbet plane, remove fence and arms.

Length $8\frac{1}{2}$ inches, cutter width $1\frac{1}{2}$ inches.

Each
No. 78—Wt. each 3 lbs. \$2.60

All above, one in a box.

IRON PLANES

STANLEY IMPROVED RABBIT AND FILLETSTER



With fence and adjustable depth gage.

Japanned iron frame, nickel plated trimmings, tempered steel cutter. Will lie perfectly flat on either side, fitted with two spurs, front part of plane can be detached for bull nose work. Cutter is adjustable endwise by means of a lever.

Length $6\frac{3}{4}$ inches, width cutter, 1 inch.

Each
No. 278—Wt. each 2 lbs. \$3.50

STANLEY IMPROVED DADO



With Adjustable Depth Gage

Japanned iron frame, nickel plated trimmings, tempered steel cutter. Cuts true even in the narrow cuts. Spurs assure smooth clean cuts.

Nos.	Each	Lgth. in.	Width of cutter, in.	Wt. each lbs.
391 $\frac{1}{4}$	\$3.20	8	$\frac{1}{4}$	$1\frac{3}{4}$
391 $\frac{1}{2}$	3.20	8	$\frac{3}{8}$	$1\frac{3}{4}$
391 $\frac{3}{4}$	3.20	8	$\frac{1}{2}$	$1\frac{3}{4}$
391 $\frac{1}{2}$	3.20	8	$\frac{5}{8}$	$1\frac{3}{4}$
391 $\frac{3}{4}$	3.20	8	$\frac{3}{4}$	2
391 $\frac{1}{2}$	3.60	8	$\frac{7}{8}$	$2\frac{3}{8}$
391	4.00	8	1	$2\frac{1}{2}$

STANLEY SCRUB

Rounded Cutter

Japanned iron frame, tempered steel cutter. Hardwood handle and knob.

Used for quickly planing down to rough dimensions boards that are not convenient to rip with a saw.

Length $9\frac{1}{2}$ inches, cutter width $1\frac{1}{4}$ inches.

Each
No. 40—Wt. each $2\frac{1}{2}$ lbs. \$2.20

STANLEY CORNER ROUNDING



Japanned iron frame tempered steel cutters. For rounding corners.

Nos.	Each	Curve in.	Lgth. in.	Wt. each, lbs.
144 $\frac{1}{4}$	\$1.70	$\frac{1}{4}$	$7\frac{1}{2}$	$1\frac{1}{8}$
144 $\frac{1}{2}$	1.70	$\frac{3}{8}$	$7\frac{1}{2}$	$1\frac{1}{8}$
144 $\frac{3}{4}$	1.70	$\frac{1}{2}$	$7\frac{1}{2}$	$1\frac{1}{8}$

All above, one in a box.

IRON PLANES

STANLEY EDGE TRIMMING



Japanned iron frame, tempered steel cutter works on a skew.

For trimming and squaring the edges of boards up to $\frac{3}{8}$ inch for a square close fit. Wood blocks of various bevels may be attached enabling the user to make a slanting cut. Length 6 inches, cutter width $\frac{3}{8}$ inch.

Each
No. 95—Wt. each $1\frac{1}{4}$ lbs.\$1.90

STANLEY BELT MAKERS

Adjustable Throat



Japanned iron frame, tempered steel cutter can be adjusted endwise. Rosewood double grip handle. Used for chamfering down the ends of leather belts.

Length $5\frac{3}{4}$ inches, width cutter 2 inches.

Each
No. 11—Wt. each $3\frac{1}{2}$ lbs.\$5.00

STANLEY ADJUSTABLE CIRCULAR



Japanned iron frame, tempered steel cutter.

The flexible steel bottoms can be adjusted to plane convex or concave surfaces. Face is fastened at its center to plane bottom and adjusted by means of screw and lever. Has graduated scale for setting face.

Length 10 inches, cutter width $1\frac{1}{4}$ in.

Each
No. 113—Wt. each $3\frac{3}{4}$ lbs.\$7.80



Japanned iron frame, tempered steel cutter. Flexible steel bottom can be adjusted to plane convex or concave surfaces.

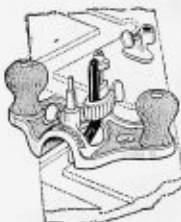
Face is fastened at each end to plane body and adjusted by a screw at the center, frame provides a good hand hold. Length 10 inches, cutter width $1\frac{1}{4}$ inches.

Each
No. 20—Wt. each 4 lbs.\$8.30

All above, one in a box.

IRON PLANES

STANLEY ROUTERS



Open Throat Three Cutters

Cast iron frame nickel plated tempered steel cutters. Maple handles finished black.

For surfacing the bottom of grooves or other depressions. Wood bottoms can be attached. Cutters are adjustable and can be held in front for regular work or on back for bull nose work. Length $7\frac{1}{2}$ inches, $\frac{1}{4}$ and $\frac{1}{2}$ inch router cutters and V or smoothing cutter.

Each
No. 71—Wt. each 2 lbs.\$4.10

Closed Throat



Cast iron frame nickel plated tempered steel cutters. Maple handles finished black. Used for surfacing bottom of grooves or other

depressions. Wood bottom can be attached. Adjustable cutters can be held in front for regular work or held in back for bull nose work.

Length $7\frac{1}{2}$ inches, $\frac{1}{4}$ and $\frac{1}{2}$ inch router cutters and V or smoothing cutter.

Each
No. 71½—Wt. each 2 lbs.\$3.30

Small Size



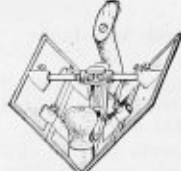
Cast iron nickel plated frame.

Used for very narrow cabinet work, inlay work cutting dados, applying lock plates, etc. Can be used for either regular or bull nose work, reversing cutter it can be used as depth gauge. Length 3 inches, cutter width $\frac{1}{4}$ inch.

Each
No. 271—Wt. each $\frac{3}{8}$ lb.\$0.90

STANLEY CORE BOX

With One Pair of Sections



Cast iron frame nickel plated, rosewood handle and knob.

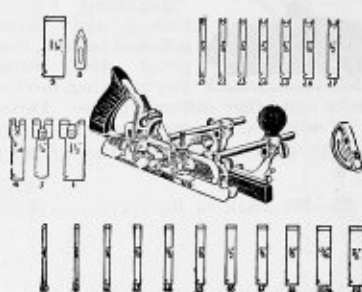
Furnished with one pair of sections to work semi-circles, 1 to 5 inches. For making circular core boxes either straight or tapered. Sides of plane are at right angles therefore point of plane will cut on the circumference of circle when sides rest on edges of cut. Length 10 inches, cutter width $\frac{3}{8}$ inch.

Each
No. 57—Wt. each $5\frac{1}{4}$ lbs.\$12.00
Additional SidesPer pair 4.00

All above, one in a box.

IRON PLANES

STANLEY COMBINATION FORTY-FIVE



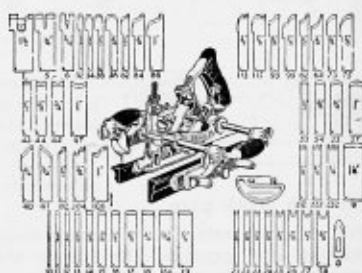
Equipped with 23 Cutters

Beading plane, plow, dado, rabbet and filletster, match plane, sash plane and slitting plane. Nickel plated iron frame; rosewood handle, knob and fence.

Each plane is regularly supplied with 11 plow and dado cutters, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ and $1\frac{1}{8}$ in.; seven beading tools, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ and $\frac{1}{2}$ in.; one $1\frac{1}{2}$ in. sash tool, one each $\frac{1}{8}$ and $\frac{1}{4}$ in. match tool; one $1\frac{1}{4}$ in. filletster and one slitting tool.

Each
No. 45—Length 11 in.; wt. each $9\frac{1}{2}$ lbs.\$15.90

COMBINATION FIFTY-FIVE



Equipped with 55 Cutters

This plane combines all the features of the Stanley Forty-five and in addition is also a Moulding Plane. Nickel plated iron frame, rosewood handle and fences.

Each plane has one $1\frac{1}{2}$ in. sash tool; one each $\frac{1}{8}$ and $\frac{1}{4}$ in. match tools; one slitting tool; one $1\frac{1}{4}$ in. filletster; 11 plow and dado tools, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ and $1\frac{1}{8}$ in.; eight beading tools, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$ and $1\frac{1}{8}$ in.; four fluting tools, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ in.; four hollows, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ and 1 in.; four rounds, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ and 1 in.; two quarter hollows, $\frac{1}{2}$ and $\frac{3}{4}$ in.; two quarter rounds, $\frac{5}{8}$ and $\frac{3}{4}$ in.; three reverse ogees, $\frac{1}{2}$, $\frac{3}{4}$ and 1 in.; two Roman ogees, $\frac{5}{8}$ and $\frac{3}{4}$ in.; three Grecian ogees, $\frac{1}{2}$, $\frac{3}{4}$ and 1 in.; two quarter rounds with bead, $\frac{5}{8}$ and $\frac{3}{4}$ in.; and three reeding tools, two beads, $\frac{1}{4}$, $\frac{3}{8}$ and $\frac{1}{2}$ in.; one each right and left hand chamfers, $\frac{3}{4}$ in.

Each
No. 55—Length 11 in.; wt. each 15 lbs.\$31.26

All above, one in a box.

IRON PLANES

STANLEY COMBINATION LIGHT



Equipped with 17 Cutters

A small combination plane for light work. Adapted for plow, beading, matching and rabbet work. Fitted with spurs, depth gauge and a fence with a 5 in. adjustment. Nickel plated frame, rosewood handle and fences.

Each plane has 1 each $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$ inch plow and dado, 1 each $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{8}$, $\frac{1}{2}$ and $\frac{3}{4}$ inch beading and $\frac{1}{4}$ inch tonguing cutter.

Each
No. 50—Length 9 $\frac{1}{4}$ inches; wt. each
3 $\frac{3}{4}$ lbs.\$9.00

STANLEY TONGUE AND GROOVE MATCH



Double End

Nickel plated cast iron frame, two tempered steel cutters, a plow and tongue tooth both governed by one permanent fence. Tongue tool has one edge wider than other edge, which overhangs one side when tonguing on center. Length 9 inches.

Nos.	Each	Cuts groove, in.	On boards, in.	Centers, in.	Wt. each, lbs.
146	\$3.70	$\frac{1}{8}$	$\frac{3}{4}$ - $\frac{1}{2}$	$\frac{3}{8}$	1 $\frac{3}{4}$
147	3.80	$\frac{3}{16}$	$\frac{1}{2}$ - $\frac{3}{4}$	$\frac{5}{8}$	2 $\frac{1}{4}$
148	3.90	$\frac{1}{4}$	$\frac{3}{4}$ -1	$\frac{7}{8}$	2 $\frac{3}{4}$

SCRAPER PLANES

STANLEY



Iron Bottom

Nos.	Each	Length, inches	Width, inches	Wt. each, lbs.
12	\$4.20	6 $\frac{1}{4}$	2 $\frac{7}{8}$	3 $\frac{1}{2}$

Hardwood Bottom

12 $\frac{1}{2}$	\$5.70	6 $\frac{1}{4}$	2 $\frac{7}{8}$	4
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Extra Blades\$0.60
Extra Hardwood Bottoms..... .60

All above, one in a box.

Japanned iron frame, polished face and sides. Rosewood double grip handles. Blades are adjustable endwise and sidewise.

CABINET SCRAPERS

STANLEY DOUBLE HANDLE



Iron Bottom

Japanned iron body, tempered steel blade, thumb screw adjustment. Raised handles. Length 11 $\frac{1}{2}$ inches, cutter width, 2 $\frac{3}{4}$ inches.

Each
No. 80—Wt. each 1 $\frac{3}{4}$ lbs.....\$1.20
Extra Blades—Per dozen 3.80
One in a box.



Rosewood Bottom

Nickel plated iron body, tempered steel blade, knurled screw adjustment. Detachable bottom for replacing. Raised handles. Length 10 inches, cutter width 2 $\frac{1}{2}$ inches.

Each
No. 81—Wt. each 2 $\frac{1}{4}$ lbs.....\$3.00
Extra Rosewood Bottom..... .60
Extra Blades—Per dozen 3.80
One in a box.

STANLEY ADJUSTABLE



A spring in the head eliminates chatter, handle can be tilted. Furnished with regular and double edge blade for rough and fine work. Japanned body, red hardwood handle.

Length 12 inches, cutter width 3 inches.

Each
No. 82—Wt. each 1 $\frac{3}{4}$ lbs.....\$1.70
Extra Blades—Per dozen 3.80
One in a box.

STANLEY NON-ADJUSTABLE



Especially recommended for scraping floors on account of its strength and form. The body is ground smooth and japanned. Handle of hardwood securely fastened. Reversible blade.

Length 13 inches, cutter width 3 in.

Each
No. 282—Wt. each 1 $\frac{5}{8}$ lbs.....\$1.50
Extra Blades—Per dozen 3.80
One in a box.

CABINET SCRAPERS

STARRETT UNIVERSAL



Ball and Socket Joint
Can be adjusted to any angle; guard slips off blade very easily.

Tool steel blade, edges ground square forming eight sharp cutting edges. Length 7 inches. Blade 2 $\frac{1}{2}$ x $\frac{3}{4}$ inches.

Each
No. 194—Wt. each 1 $\frac{1}{4}$ lbs.....\$1.25
Extra Blades25
One in a box.

HOOK



Designed for odd jobs of scraping. It is a useful tool for painters and woodworkers, also around the house. It is very efficient for refinishing worn spots on floors.

A door or drawer that does not work properly can readily be eased up with this tool. It is also unequalled for refinishing furniture.

Cutters are 2 $\frac{1}{2}$ inches wide and made of imported Swedish steel, bent while steel is soft, hardened and tempered afterwards and ground like a razor.

Per dozen
No. 25—Wt. per dozen 4 lbs.....\$9.00
One-half dozen in a box.

Per dozen
No. 25C—Extra cutters\$3.00
One-half dozen in a tube.



This scraper is especially adapted for scraping floors, boats, boxes, etc., or wherever a scraper is used constantly, as it has a comfortable pistol-grip handle and knob.

Cutters are made of imported Swedish steel, bent while the steel is soft, hardened and tempered afterwards, and ground like a razor.

The No. 25 2 $\frac{1}{2}$ in. cutter has a decided curve and is designed for rough and fast scraping. The No. 34 3 $\frac{1}{4}$ in. cutter end is slightly curved and is designed for finishing.

Furnished with Two Cutters

Per dozen
No. 3425—Wt. per dozen 9 lbs.....\$21.00
One in a box.

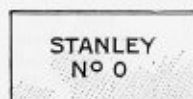
Extra Cutters

Nos.	Per dozen	Width, inches	For kind of scraping
25	\$3.00	2 $\frac{1}{2}$	Rough
34	3.00	3 $\frac{1}{4}$	Finishing

One-half or one dozen in a tube.

HAND SCRAPERS

STANLEY



Heat treated steel blade, finished edges accurately ground.

No. 0

Size, inches	Per dozen	Thickness, inch	Wt. per doz., lbs.
2 x4	\$5.00	.037	7/8
2 1/2 x5	5.20	.037	1 1/4
3 x4	5.10	.037	1 1/2
3 x5	5.50	.037	2
3 x6	6.40	.037	2 1/4

One-half dozen in a box.

DISSTON



Made of Disston steel, hardened and tempered.

Plain edges not dressed.

No. 20

Size, inches	Per doz.	Thickness, gauge	Thickness, inch	Wt. per doz., lbs.
3 x4	\$2.10	20	.035	2
3 x5	2.50	20	.035	2
3 x6	2.90	20	.035	2 1/4
3 1/2 x6	3.30	20	.035	2 3/4

One dozen in a box.

CABINET BURNISHERS

DISSTON



Used for turning the edges of cabinet scrapers. Made of Disston steel, varnished hardwood handle, nickel plated ferrule. Length blade 4 1/2 inches.

Per dozen

No. 1—Wt. per dozen 1 1/4 lbs.\$7.40

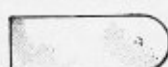
One-half dozen in a box.

PLANE IRONS

STANLEY BLOCK



Adjustable



Non-Adjustable

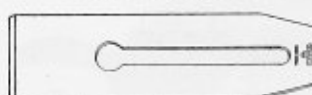
Specify whether adjustable or non-adjustable cutters are desired.

Size, in.	For planes, Nos.	Per dozen
1	100, 101	\$1.70
1 1/8	60, 60 1/2, 61, 203	5.10
1 1/4	102	2.80
1 1/2	103	3.80
1 3/4	9 1/2, 15, 16, 17, 18, 818, A18,	
	118, 19, 63, 65, 65 1/2, 120,	
	131, 220	5.10
1 5/8	110, 130, 1120	3.80
1 3/4	140	6.60
2	62, 164	12.00

One-half dozen in a box.

PLANE IRONS

BAILEY SINGLE



For Bailey and Bed Rock iron and wood planes.

Specify when ordering, the number of plane, width of iron and whether single or double iron is wanted.

Following gives list number of planes for different width plane irons.

Width, inches	For Plane Nos.
1 1/4	1
1 1/2	2, 2C, 602
1 3/4	3, 3C, 5 1/4, 5 1/2 C, 20, 22, 113, 603, 603C, 605 1/4
2	4, 4C, 84, A4, 5, 5C, 85, A5, 9, 24, 26, 35, 604, 604C, 605, 605C, 1104, 1105
2 1/4	10, 10 1/4, 10 1/2
2 3/4	4 1/2, 4 1/2 C, 5 1/2, 5 1/2 C, 6, 6C, A6, 7, 7C, 11, 28, 31, 36, 51, 604 1/2, 604 1/2 C, 605 1/2, 605 1/2 C, 606, 606C, 607, 607C
2 5/8	8, 8C, 32, 608, 608C

Wth., in.	Each	Wth., in.	Each
1 1/4	\$.048	2 1/4	\$.080
1 1/2	.04	2 3/4	.082
1 3/4	.06	2 5/8	.086
2	.08		

BAILEY DOUBLE



For Bailey and Bed Rock iron and wood planes.

See list above for plane Nos. and sizes and how to order.

Wth., in.	Each	Wth., in.	Each
1 1/4	\$.086	2 1/4	\$.128
1 1/2	1.00	2 3/4	1.32
1 3/4	1.02	2 5/8	1.36
2	1.16		

BUCK BROS. SINGLE



Forged from highest grade cast steel.

No. 59

Wth., in.	Per dozen	Wth., in.	Per dozen
1 1/4	\$.55	2 3/4	\$ 8.40
2	6.40	2 1/2	8.90
2 1/4	6.60	2 5/8	10.00
2 3/4	7.60		

All above, open stock.

PLANE IRONS
BUCK BROS. DOUBLE

Forged from highest grade of cast steel.

No. 60

Wth., in.	Per dozen	Wth., in.	Per dozen
1 1/4	\$.10.60	2 3/4	\$.14.65
2	11.65	2 1/2	15.60
2 1/4	12.15	2 5/8	17.10
2 3/4	13.30		

Open stock.

BUCK BROS. TOOTH



Forged from highest grade cast steel.

Made in three cuts, fine, medium and coarse.

No. 63

Width, in.	Per dozen
2	\$.12.90
2 1/4	14.40

Open stock.

Note—Always state cut required when ordering.

JOINTER GAUGES

STANLEY



Can be used on all sizes of metal jack or jointer planes. Allows planing of any angle between 30 and 90 degrees or to square up edges of boards. Used either right or left hand. Wood face can be attached to increase bearing surface.

Nickel plated iron and steel.

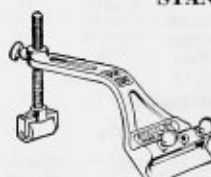
Rosewood handles.

Length 11 inches, width 2 1/2 in.

No. 386—Wt. each 2 1/4 lbs.\$2.80
One in a box.

CUTTER AND CHISEL GRINDERS

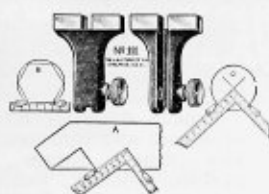
STANLEY



For holding plane irons, chisels, etc. at proper angle for grinding. Nickel plated finish. Width 2 1/2 in.

No. 200—Wt. each 1 1/2 lbs.\$2.00
One in a box.

STAIR GAGE FIXTURES STARRETT



For Use with Steel Square

These fixtures are readily clamped to a carpenter's square to form a gage for various uses as in stairs, valley cuts, hip and rafter work.

No. 111—Wt. per pair 4 oz. \$0.90
Per pair
Three pairs in a box.



For Use with Steel Square

Quickly clamped to a carpenter's square to lay out angles for stair stringers, sawing, etc. Brass set screw. Balance of tool white nickel.

No. 470—Wt. per pair 4 oz. \$0.50
Per pair
Twelve pairs in a box.

SLIDING T BEVELS STANLEY



Steel blade blued finish, firmly held at any angle. Brass tips, rosewood handy grip handle.

No. 25

Length blade, inches	Per doz.	Length handle, inches	Wt. per doz., lbs.
6	\$ 7.20	4½	2¼
8	7.20	5½	3¼
10	7.70	6½	4
12	10.00	7½	5

One-half dozen in a box.

Iron Handle

Hardened and tempered steel blade. Nickel plated handle. Thumb screw adjustment prevents slipping.

No. 18

Length blade, inches	Per doz.	Length handle, inches	Wt. per doz., lbs.
6	\$12.40	4½	4½
8	13.80	5½	5½
10	15.00	6½	7½
12	17.00	7½	9

One-half dozen in a box.

TRY SQUARES STANLEY

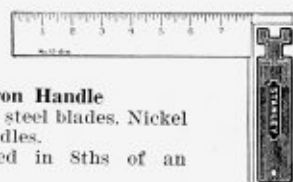


Wood Handle

Steel blade, blued finish, rosewood handy grip handles with brass face plates. Graduated 8ths of an inch.

No. 20

Length blade, inches	Per doz.	Length handle, inches	Wt. per doz., lbs.
4½	\$ 7.00	3½	2¼
6	7.50	4½	4¼
7½	7.80	5½	5¼
9	9.60	6	7¼
10	12.00	6	7½
12	14.00	7	9
15	18.00	8¼	12¼



Iron Handle

Polished steel blades. Nickel plated handles. Graduated in 8ths of an inch.

No. 12

Length blade, inches	Per doz.	Length handle, inches	Wt. per doz., lbs.
6	\$ 9.00	4½	6¼
8	10.00	5½	8½
10	13.00	6½	12½
12	15.00	8	16½

TRY AND MITRE SQUARES STANLEY

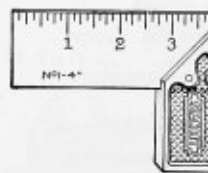


Wood Handle

Blued steel blade. Rosewood handy grip handle with brass face plates. Can be used as a try or mitre square as one edge of handle is set at 45 degrees. Graduated in 8ths of an inch.

No. 2

Length blade, inches	Per doz.	Length handle, inches	Wt. per doz., lbs.
6	\$11.40	3½	4
7½	13.00	4¾	6
9	15.70	5¾	6¾



Iron Handle

Polished steel blade, nickel plated handle. Can be used as a try and mitre square as one end is set at an angle of 45 degrees. Graduated in 8ths of an inch.

No. 1

Length blade, inches	Each	Length handle, inches	Wt. per doz., lbs.
6	\$11.10	4	5¾
8	13.50	5½	8

All above, six in a box.

TRY SQUARES DEFIANCE



Metal Handle

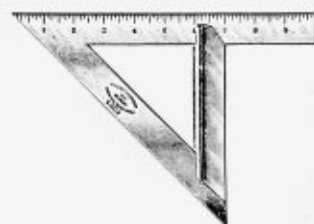
Inexpensive but practical square.

Polished steel blade spot welded to blued finish metal handle. Accurately graduated in 8ths of an inch on both sides.

Length blade 6 inches, length of handle 3 inches.

No. 1280—Wt. per dozen 3¾ lbs. . . . \$2.40
Per dozen
One dozen in a box.

COMBINATION SQUARES FOX



All Steel, Nickel Plated

Simple, accurate and durable; improved electric welded; no adjusting necessary; one blade graduated in 8ths; flanged handle faced on both sides.

Length blade 10 inches.

No. 3—Wt. per dozen 6 lbs. . . . \$15.00
Per dozen
One-half dozen in a box.

STANLEY



Adjustable Try and Mitre Level and Scriber

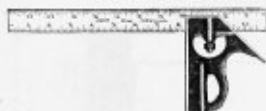
Highly polished, cold rolled, tempered steel blade, edge ground square and parallel; reversible; graduated in 8ths, 16ths, and 32nds of inches. Iron head fitted with proved level glass and removable scratch awl; working surfaces ground, balance of head black finish, rust-proofed.

No. 21

Length blade, inches	Each	Length handle, inches	Wt. per doz., lbs.
9	\$0.96	3¾	¾
12	1.00	3¾	1

One in a box.

COMBINATION SQUARES LUFKIN UNIVERSAL



With
and
Without
Level

Designed especially for carpenters' and woodworkers' use. Consists of a graduated steel blade grooved on one side and fitted with movable enameled metal head with square and mitre faces which can be securely clamped at any point.

Blade marked on both sides, one edge 8ths of an inch and other edge 16ths of an inch.

With Level

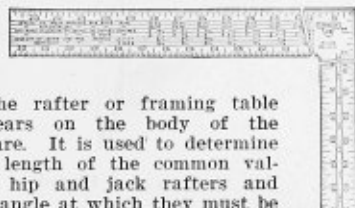
Nos.	Each	Size, in.	Wt. each, oz.
65L	\$1.35	9	12
65L	1.50	12	18

Without Level

Nos.	Each	Size, in.	Wt. each, oz.
65	\$1.10	9	12
65	1.25	12	18

One in a box.

RAFTER OR FRAMING SQUARES STANLEY



The rafter or framing table appears on the body of the square. It is used to determine the length of the common valley, hip and jack rafters and the angle at which they must be cut to fit at the ridge and plate.

BRACE, OCTAGON, ESSEX BOARD MEASURE AND 100ths SCALE

Two Foot, Polished

Nos.	Each
No. R100—Body 24x2 in., tongue 16x1½ in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	\$2.40

Two Foot, Blued

No. R100B—Same as No. R100 except finish	3.00
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Two Foot, Royal Copper Finish

No. R100C—Same as No. R100 except finish	3.40
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Two Foot, Stainless Steel

No. SR100—Same as No. R100 except finish	4.20
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BRACE AND ESSEX BOARD MEASURE

Two Foot, Polished

Nos.	Each
No. R3—Body 24x2 in., tongue 16x1½ in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	\$1.84

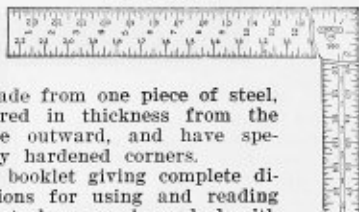
Two Foot, Blued

No. R3B—Same as No. R3 except finish	2.44
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Weight each 2½ pounds.

Three in a box.

STEEL SQUARES STANLEY



Made from one piece of steel, tapered in thickness from the angle outward, and have specially hardened corners.

A booklet giving complete directions for using and reading the steel square is packed with each square.

BRACE, OCTAGON, ESSEX BOARD MEASURE AND 100ths SCALE

Two Foot, Polished

Nos.	Each
No. 100—Body 24x2 in., tongue 16x1½ in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	\$1.86

Two Foot, Blued

No. 100B—Same as No. 100 except finish	2.46
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Two Foot, Royal Copper

No. 100C—Same as No. 100 except finish	2.86
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BRACE AND ESSEX BOARD MEASURE

Two Foot, Polished

Nos.	Each
No. 3—Body 24x2 in., tongue 16x1½ in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	\$1.68

Two Foot, Blued

No. 3B—Same as No. 3 except finish	2.28
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ESSEX BOARD MEASURE

Two Foot, Polished

Nos.	Each
No. 14—Body 24x2 in., tongue 16x1½ in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	\$1.50

Two Foot, Blued

No. 14B—Same as No. 14 except finish	2.10
Weight each 2¼ pounds.	

WITHOUT TABLES OR SCALES

18 Inch, Polished

Nos.	Each
No. 18—Body 18x1½ in., tongue 12x1 in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	\$1.50

18 Inch, Blued

No. 18B—Same as No. 18 except finish	2.10
Weight each 1¼ pounds.	

12 Inch, Polished

No. 10—Body 12x1½ in., tongue 8x1 in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	1.16
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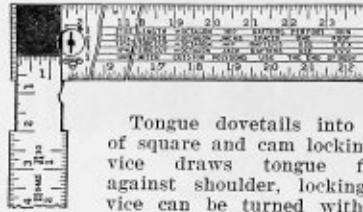
12 Inch, Blued

No. 12—Body 12x1½ in., tongue 8x1 in., marked ½, ⅓, ⅔, ¼, ⅛, ⅞	1.30
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Weight each ¾ pound.

All above, three in a box.

TAKE DOWN SQUARES STANLEY RAFTER OR FRAMING



Tongue dovetails into body of square and cam locking device draws tongue firmly against shoulder, locking device can be turned with key furnished or with screwdriver or coin.

BRACE, OCTAGON, ESSEX BOARD MEASURE AND 100ths SCALE

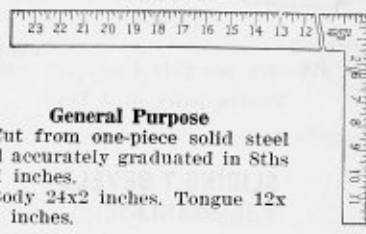
Two Foot, Polished

Nos.	Each
No. R100TD—Body 24x2 in.; tongue 16x1½ in.; marked ½, ⅓, ⅔, ¼, ⅛, ⅞, wt. each 2¾ lbs.	\$5.80

Two Foot, Blued

No. R100BTB—Same as No. R100TD, except finish	6.00
One in a waterproof canvas case.	

STEEL SQUARES DEFIANCE



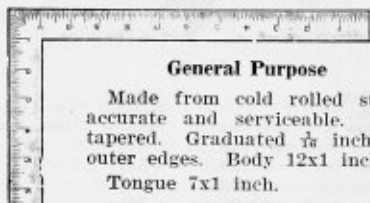
General Purpose

Cut from one-piece solid steel and accurately graduated in 8ths and inches.

Body 24x2 inches. Tongue 12x1½ inches.

Nos.	Per dozen
No. 800—Wt. per dozen 20 lbs.	\$8.40
One-half dozen in a box.	

AETNA



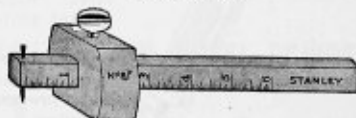
General Purpose

Made from cold rolled steel, accurate and serviceable. Not tapered. Graduated ⅛ inch on outer edges. Body 12x1 inch.

Tongue 7x1 inch.

Nos.	Per dozen
No. 127—Wt. per dozen 4¼ lbs.	\$3.00
One dozen in a box.	

MARKING GAGES STANLEY



Beechwood; boxwood thumb-screw, square head, oval bar; tempered point; graduated in 16ths for 6 inches from point. Length 8¼ inches.

Nos.	Per doz.	Wood	Point	Wt. per doz., lbs.
61	\$3.60	Plain	Fixed	3
62	5.50	Polished	Adjustable	3

One dozen in a box.

MARKING GAGES STANLEY WOOD



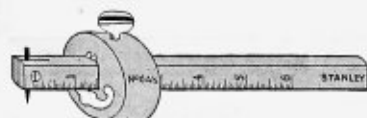
Brass Thumb Screw and Face Plate

Polished boxwood, square head, oval bar; adjustable tempered point; graduated in 16ths for 6 inches from point. Length 8½ inches.

Per dozen

No. 65—Wt. per dozen 3¾ lbs.\$11.70

One-half dozen in a box.



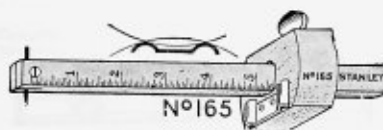
Brass Thumb Screw and Face Plate

Polished beechwood round head, oval bar, adjustable tempered point. Graduated in 16ths for 6 inches from point. Length 8½ inches.

Per dozen

No. 64½—Wt. per dozen 3¾ lbs.\$8.70

One-half dozen in a box.



Brass Thumb Screw and Circular Face Plate

Polished boxwood, square head, oval bar, adjustable tempered point, graduated in 16ths for 6 inches from point, circular face plate makes it possible to run a gage line around curves of any degree convex or concave.

Length 8½ inches.

Per dozen

No. 165—Wt. per dozen 3¾ lbs.\$12.50

One-half dozen in a box.

MORTISE AND MARKING



Brass Thumb Screw and Face Plate

Polished rosewood, square head, oval bar, brass slide in bar, tempered steel pin in bar and one in slide. Both sides of mortise can be marked at once. Graduated in 16ths for 6 inches from point. Length 7½ inches.

Per dozen

No. 77—Wt. per dozen 5 lbs.\$21.60

One-quarter dozen in a box.

MARKING GAGES STANLEY METAL



Single Bar, Single Face Head

Adjustable tempered steel point. Nickel plated finish. Graduated in 16ths for 5 inches from point. Length 6½ inches.

Each

No. 90—Wt. each ¼ lb.\$0.90



Single Bar, Double Face Head

Roller cutter; adjustable tempered steel point, nickel plated finish, graduated in 16ths for 5 inches from point. Length 5½ inches.

Each

No. 97—Wt. each ¾ lbs.\$1.30

MORTISE AND MARKING



Double Bar, Single Face Head

Adjustable tempered points; nickel plated finish. Graduated in 16ths for 5 inches from point. Length 6½ inches.

Each

No. 91—Wt. each ½ lb.\$1.50



Double Bar, Double Face Head

Roller cutters. Adjustable tempered steel pins, nickel plated. Graduated in 16ths for 5 inches from point. Length 6½ inches.

Each

No. 98—Wt. each ½ lb.\$2.00

All above, one in a box.

BUTT GAGES STANLEY



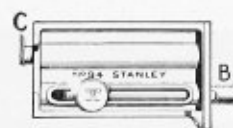
For Rabbeted Jamb or Nail-Strikes

Cutter A marks from jamb in rabbet. Cutter B from the edge of the door engaged in closing; cutter C for thickness of the butt. Brass slide, steel head, nickel plated. Graduated in 16ths for 2 inches.

Each

No. 93—Wt. each ¼ lb.\$1.70

BUTT GAGES STANLEY



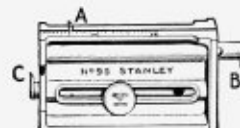
For Rabbeted Jamb or Nail-Strikes

For rabbeted jambs. Cutter A marks from the jamb in the rabbet. Cutter B from the edge of the door engaged in closing. Cutter C the thickness of the butt for nailed strikes. Cutter B, when reversed, marks for the butt on both door and jamb. Cutter C the thickness of the butt. Steel bars, iron body nickel plated, graduated in 16ths for 2 inches.

Length 3 inches.

Each

No. 94—Wt. each 10 oz.\$1.90



For Rabbeted Jamb

Has three cutters, purposely arranged so that no change of setting is necessary when hanging several doors. In reality these tools comprise rabbet gages, marking gages and mortise gages of a scope sufficient for all door trim, including lock plates, strike plates, etc.

Steel bars, iron body nickel plated, graduated in 16ths for 2 in. Length 3 inches.

Each

No. 95—Wt. each ¾ lb.\$1.70

One in a box.

BUTT GAGE MORTISER STANLEY



Simplifies mortising doors and casings for 3, 3½, 4 and 4½ inch butts. It gives the butt size, cuts the mortise to length and serves as a guide for the back and depth cuts. One set for a butt. It need not be changed until a different size butt is used with it. Every mortise is flat and smooth.

Cutters made from high quality steel, tempered and sharpened. All parts are standard, carefully machined and replaceable. Composition back plate to prevent dulling chisels. Length 7¾ inches.

Each

No. 281—Wt. each 2 lbs.\$4.20

One in a box.

PLUMBS AND LEVELS **STANLEY WOOD**



Non-Adjustable Level Only

Made from seasoned cherry wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch, proved glasses.

No. 102

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
10	\$0.96	$\frac{3}{4}$	14	\$1.04	1
12	.96	$\frac{7}{8}$	16	1.08	$1\frac{1}{8}$

Twelve in a case.



Plumb and Level, Non-Adjustable

Made from seasoned cherry wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch, proved glasses.

No. 104

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
12	\$1.16	$\frac{3}{4}$	16	\$1.20	$1\frac{1}{8}$
14	1.16	$\frac{7}{8}$	18	1.24	$1\frac{1}{4}$

Twelve in a case.



Plumb and Level, Non-Adjustable

Made from seasoned cherry wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch, proved glasses.

No. 00

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
18	\$1.44	$1\frac{1}{8}$	22	\$1.50	$1\frac{3}{8}$
20	1.50	$1\frac{1}{2}$			

Assorted

Per dozen

No. 00A—Length 18 to 22 in.; wt. per dozen 32 lbs.\$17.76

No. 0

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$1.60	$1\frac{3}{8}$	28	\$1.80	$2\frac{1}{8}$
26	1.70	2	30	1.90	$2\frac{1}{4}$

Assorted

Per dozen

No. 0A—Length 24 to 30 in.; wt. per dozen 36 lbs.\$21.00
One-half dozen in a case.



Plumb and Level, Adjustable **Brass Tips**

Made from seasoned cherry wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch, proved glasses.

No. 3

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$2.50	3	28	\$2.70	$3\frac{1}{2}$
26	2.60	$3\frac{1}{4}$	30	2.80	$3\frac{3}{4}$

Assorted

Per dozen

No. 3A—Length 24 to 30 in.; wt. per dozen 44 lbs.\$31.80
One-half dozen in a box.

PLUMBS AND LEVELS **STANLEY WOOD**



Duplex Adjustable, Brass Tips

Made of seasoned cherry wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch. Proved glasses. Equipped with two levels and one plumb glasses.

No. 30

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$3.40	$3\frac{1}{8}$	28	\$3.70	$3\frac{1}{2}$
26	3.40	$3\frac{1}{4}$	30	3.80	$3\frac{3}{4}$

One in a box.



Adjustable, Brass Bound and Tips

Made of seasoned mahogany wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch. Proved glasses.

No. 93

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$6.40	$3\frac{1}{2}$	30	\$7.30	$4\frac{1}{4}$
26	6.70	$3\frac{3}{4}$			

One in a box.



Adjustable, Brass Bound and Tips

Made of seasoned mahogany wood. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch. Proved glasses.

No. 1093

Lth. in.	Each	Wt. ea., lbs.
12	\$3.40	$1\frac{1}{2}$
18	4.20	$1\frac{5}{8}$

One in a box.



Light Wood, Non-Adjustable

Four glasses, two single plumbs, one double level. Made from seasoned sugar pine; orange lacquer finish. Stock $2\frac{1}{2} \times 1\frac{1}{2}$ inch. Protected glasses.

No. 257

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$1.60	$1\frac{3}{8}$	28	\$1.68	$1\frac{5}{8}$
26	1.64	$1\frac{1}{2}$	30	1.80	$1\frac{3}{4}$

One in a box.



Light Wood, Full Aluminum Bound **Non-Adjustable**

Four glasses, two single plumbs, one double-level. Made from seasoned sugar pine; orange lacquer finish. Stock $2\frac{1}{2} \times 1\frac{1}{2}$ inch. Protected glasses.

No. 258

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$2.80	$1\frac{1}{2}$	28	\$2.96	$1\frac{3}{4}$
26	2.88	$1\frac{5}{8}$	30	3.04	$1\frac{7}{8}$

One in a box.

PLUMBS AND LEVELS **DEFIANCE WOOD**



Light Wood, Non-Adjustable

A practical tool for ordinary work. Stock $2\frac{3}{4} \times 1\frac{1}{2}$ inch. Accurate proved glasses, set solid in plaster. Painted orange, length 18 inches.

Per dozen

No. 1294—Wt. per dozen 15 lbs.\$6.00

One dozen in a box.

STANLEY ALUMINUM



Adjustable

Especially adapted for carpenters, bottoms milled and ground. Three proved glasses, two plumbs one level. Fitted with covers for protection when not in use.

No. 237

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
12	\$4.40	1	24	\$6.40	2
18	5.40	$1\frac{1}{2}$			

One in a box.



Adjustable, Truss Construction

Truss construction. Finest aluminum alloy casting, cross section $2\frac{1}{2} \times 1\frac{1}{2}$ inches. Glasses set in adjustable aluminum cases, two proved double plumbs and one double level.

No. 232

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
24	\$5.00	2	28	\$6.00	$2\frac{3}{8}$
26	5.50	$2\frac{1}{4}$	30	6.50	$2\frac{1}{2}$

One in a box.



Non-Adjustable, Truss Construction

Truss construction, cross section $2\frac{1}{2} \times 1\frac{1}{2}$ inch. The 18 inch has two proved single plumb and one double level. The 24 and 28 inch sizes have two double proved plumbs and one double proved level. 12 inch size has grooved bottom for leveling pipe.

No. 313

Lth. in.	Each	Wt. ea., lbs.	Lth. in.	Each	Wt. ea., lbs.
12	\$1.80	1	24	\$2.30	2
18	2.10	$1\frac{1}{2}$	28	3.10	$2\frac{3}{8}$

One in a box.

PLUMBS AND LEVELS

SANDS ALUMINUM



Non-Adjustable

For carpenters, etc. Made of aluminum alloy casting of great strength, durability and light weight. Frame $2\frac{1}{4} \times 1\frac{1}{8}$ inch. Protected glasses.

With Two Plumbs and Two Levels

No.	Each	Length, inches	Weight each, oz.
18	\$4.25	18	1 $\frac{3}{4}$

With Four Plumbs and Two Levels

24	\$5.00	24	1
26	5.50	26	2 $\frac{1}{4}$
28	6.00	28	2 $\frac{1}{2}$
30	6.50	30	2 $\frac{3}{4}$

One in a box.

MASONS' PLUMBS AND LEVELS

SANDS WOOD



Non-Adjustable

Made of thoroughly seasoned carefully selected California sugar pine. Stock $2\frac{1}{2} \times 1\frac{1}{4}$ inches. Four plumbs, two levels. Protected glasses.

No. 3A

Length inches	Each	Wt. each, lbs.
42	\$3.50	2 $\frac{1}{4}$
48	3.75	2 $\frac{1}{2}$

One in a box.



Non-Adjustable, Brass Bound

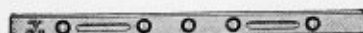
Made of thoroughly seasoned carefully selected California sugar pine. Stock $2\frac{1}{2} \times 1\frac{1}{4}$ inches. Four plumbs, two levels, protected glasses.

No. 7A

Length inches	Each	Wt. each, lbs.
42	\$5.25	3 $\frac{1}{2}$
48	5.75	3 $\frac{3}{4}$

One in a box.

STANLEY WOOD



Non-Adjustable

Made of seasoned sugar pine and finished orange lacquer. Stock $2\frac{1}{2} \times 1\frac{1}{8}$ inch. Four matched proved plumbs and one double proved level.

Length 48 inches.

Each

No. 252—Wt. each 2 $\frac{3}{4}$ lbs. \$3.00

Two in a box.

MASONS' PLUMBS AND LEVELS

PEERLESS WOOD



Non-Adjustable, Brass End Plates

Made of seven pieces seasoned white pine and mahogany, put together with waterproof glue. Stock $2\frac{3}{4} \times 1\frac{1}{4}$ inches. Brass end plates. Four plumbs, two levels.

No. 7

Length inches	Each	Wt. each, lbs.
42	\$6.65	2 $\frac{1}{4}$
48	7.00	2 $\frac{1}{2}$

One in a carton.



Non-Adjustable, Fully Brass Bound

Made of seasoned white pine, stock $2\frac{3}{4} \times 1\frac{1}{4}$ inch, $\frac{3}{8} \times \frac{1}{2}$ inch brass binding on all four edges. Four plumbs, two levels.

No. 40

Length inches	Each	Wt. each, lbs.
42	\$5.25	3
48	5.75	3 $\frac{1}{2}$

One in a carton.



Non-Adjustable, Brass End Plates

Made of seasoned white pine stock $2\frac{3}{4} \times 1\frac{1}{4}$ inches. Brass end plates. Four plumbs, two levels.

No. 3

Length inches	Each	Wt. each, lbs.
42	\$4.00	2
48	4.25	2 $\frac{1}{4}$

One in a carton.

SANDS ALUMINUM



Non-Adjustable

Made of aluminum alloy casting of great strength and durability. Frame $2\frac{1}{4} \times 1\frac{1}{8}$ inch. Four plumbs, two levels. Protected glasses.

No. 42

Length inches	Each	Wt. each, lbs.
42	\$ 9.00	3 $\frac{1}{2}$
48	12.00	3 $\frac{3}{4}$

One in a box.

PLUMBS AND LEVELS

STANLEY IRON



Adjustable, grooved bottom. For carpenters, plumbers, etc. Made from I beam casting. Milled top and bottom. Two plumbs, one level, protected by eclipse covers. Japanned, nickel plated trim.

No. 36G

Lth., in.	Each	Wt. ea., lbs.	Lth., in.	Each	Wt. ea., lbs.
6	\$2.70	$\frac{3}{8}$	18	\$3.70	2
9	2.90	1 $\frac{1}{4}$	24	4.10	3
12	3.10	1 $\frac{3}{4}$			

One in a box.

PLUMBS AND LEVELS

STANLEY IRON



Adjustable, Grooved Bottom

For carpenters, plumbers, etc. Made from I beam casting, milled top and bottom. Two plumbs, one level. Protected by Eclipse covers. Nickel plated finish.

No. 37G

Lth., in.	Each	Wt. ea., lbs.	Lth., in.	Each	Wt. ea., lbs.
12	\$4.20	2 $\frac{3}{4}$	24	\$5.70	4 $\frac{1}{4}$
18	5.00	3 $\frac{1}{4}$			

One in a box.

DISSTON ALUMINUM



Non-Adjustable

Made from aluminum alloy, two proved plumbs, one proved level. Top plate polished, lower plate and edge natural finish. Center of frame japanned. No. 10A has tapered ends. No. 12A has rounded ends.

Nos.	Per doz.	Length, in.	Size frame, in.	Wt. per doz., lbs.
A10	\$17.30	10	1 $\frac{1}{2} \times \frac{5}{8}$	1 $\frac{1}{2}$
A12	27.60	12	1 $\frac{1}{2} \times \frac{5}{8}$	3

One-half dozen in a box.

STARRETT IRON

ENGINEERS AND PLUMBERS'



With Grooved Bottom

A hinged tube inside the frame contains a level glass adjusted to a graduated scale and shows any incline by 32nds (or less) to 2 inches to the foot. Also has a fixed level and plumb.

Nos.	Each	Length, in.	Vial	Wt. each, lbs.
133A	\$4.00	10	Plain	1 $\frac{3}{8}$
133B	4.25	15	Plain	2 $\frac{3}{8}$
133C	7.00	10	Ground	1 $\frac{3}{8}$
133D	7.25	15	Ground	2 $\frac{3}{8}$

One in a box.

STARRETT, IRON BENCH



Grooved Bottom, Double Plumb

Graduated vials for accuracy. Grooved bottom for shafting, etc.

No. 132

Length, inches	Each	Ends	Wt. each, lbs.
4	\$1.65	Square	$\frac{3}{4}$
6	1.80	Square	$\frac{7}{8}$
9	2.00	Square	1 $\frac{1}{4}$
12	2.10	Square	1 $\frac{3}{4}$
18	3.00	Concave	2 $\frac{3}{4}$
24	3.50	Concave	4

One in a box.

LEVELS

STARRETT IRON BENCH



Style of 6 and 8 inch.



Style of 12 inch.

Adjustable, Grooved Bottom

For testing shafting, etc. Accurate and very sensitive, ground vial is slightly concave on inside removing any small particles on surface, giving a more sensitive bubble. Can be adjusted to be accurately true.

Knurled outer tube. Can be turned to protect glass. Nickel plated tubes. Japanned base.

12 inch size has single plumb.

18 inch size has double plumb.

No. 97—Plain Vial

Lth., in.	Each	Wt. ea., lbs.	Lth., in.	Each	Wt. ea., lbs.
6	\$2.25	1	12	\$4.00	3½
8	2.75	1½	18	6.00	5½

No. 98—Ground, Graduated Vial

Lth., in.	Each	Wt. ea., lbs.	Lth., in.	Each	Wt. ea., lbs.
6	\$4.25	1	12	\$7.00	3½
8	5.00	1½	18	10.00	5½

One in a box.

STANLEY IRON MACHINISTS



Non-Adjustable

For machinists; also used to level all burners. Top plate fastened independently of glass.

Nos.	Each	Length, inches	Wt. ea., oz.
38½	\$1.00	4	4
39½	1.20	6	6

Six in a box.

STARRETT POCKET



Japanned Iron Base, Proved Glass

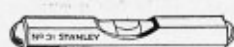
Length 3½ inches.

Each

No. 130—Wt. each ¾ lb. \$0.60

One in a box.

STANLEY POCKET



Hexagon Nickel Plated Case

Proved level glass.

No. 31

Lth., in.	Each	Wt. ea., oz.	Lth., in.	Each	Wt. ea., oz.
2	\$0.60	½	3	\$0.72	1
2½	.60	¾	3½	.84	1½

Six in a box.

LEVELS

STANLEY STRAIGHT EDGE



Japanned Iron Body, Brass Top

Can be attached to any straight edge or carpenters' square. Proved glass. Length 3½ inches.

Per dozen

No. 41—Wt. per dozen 1¼ lbs. \$3.60

One dozen in a box.

STARRETT, CROSS TEST



Levels in both directions. Two levels are united in one frame extending at right angles 2½ inch each way. Japanned finish.

Each

No. 136—Wt. each 4 oz. \$0.90

One in a box.

EDEN STRAIGHT EDGE



For attaching to any straight edge for masons, carpenters, plumbers use. Nickel plated finish.

Nos.	28	22
Size, in.	3½x2½	5½x3½
Kind	Plumb Only	Plumb & Level
No. of vials	1	2
Wt. doz., lbs.	3	6
Per dozen	\$10.80	21.60

One in a box.

LINE LEVELS

STANLEY ALUMINUM



Polished aluminum. Guards on hooks make it difficult to shake from a line. Proved glass set solid in plaster. Flat bottom adapts it for surface leveling.

Length 3¼ inches.

Per dozen

No. 187—Wt. per dozen 6 oz. \$6.00

One-half dozen in a box.

LINE LEVELS

STARRETT ALUMINUM



Hexagon case, reversed hooks prevent shaking off line. Level glass protected by guard. Can also be used as a surface level. Length 3 inches, diameter ¾ inch.

Each

No. 108—Wt. each ½ oz. \$0.50

One in a box.

LEVEL GLASSES

STANLEY PROVED



Proved, extra thick tubing, marked at central and crowning points with two indelible lines, glass can easily be set in position accurately.

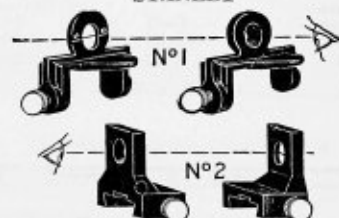
No. 208

Lth., in.	Per dozen	Wt. lbs.	Lth., in.	Per dozen	Wt. lbs.
1	\$0.96	¼	2	\$1.00	½
1¼	.96	¼	2½	1.10	½
1½	.96	¼	3	1.20	¾
1¾	.96	¼	3½	1.30	¾

One dozen in a box.

LEVEL SIGHTS

STANLEY



Brass, Black Finish

Used with a level as an inexpensive substitute for surveyors' instruments for leveling and aligning walls, running grades, fences, etc.

Nos.	Per pair	For levels	Wt. per pair, lbs.
1	\$1.20	Wood	½
2	1.20	Metal	¾

One pair in a box.

LEVELING STANDS

STANLEY ADJUSTABLE

For Wood and Metal Levels



Used with a level and a pair of leveling sights. For ordinary work makes a very satisfactory substitute for a more expensive surveyors' instrument. Nickel plated malleable iron.

Each

No. 338—Wt. each 2½ lbs. \$4.00

One in a box.

LEVELING INSTRUMENTS

STARRETT



This instrument attains angles in a horizontal plane only, and is designed for the use of farmers, contractors, carpenters, masons, mill-wrights, surveyors, etc.

Very desirable for all who have occasion to use such an instrument. The upper plate is connected to the tripod head by a ball and socket joint, and is leveled by leveling screws. This plate is recessed to contain a graduated arc for taking angles, and on the plate is the frame with level and sight tube for taking horizontal angles only. Instruction book sent with each instrument.

Nickel plated plain sight tube or telescope. 12 inches long.

Nos. 101A and 101B has plain sight tube, no lenses, with small eye aperture and cross wires.

No. 101C telescope is adjusted to long distances and has cross wires. All have long legs.

Nos.	Each	Level vial	Wt. each, lbs.
101A	\$15.00	Plain	20
101B	16.75	Ground	20
101C	25.00	Ground	20

Iron Target without pole....Each \$1.50

One in a wood carrying case.



For contractors, builders, carpenters, etc. Consists of a tripod, to the head of which is connected by a ball and socket joint,

an upper plate which can be leveled by the leveling screws. With legs extended, height is 4 feet, 8 inches. Instruction book with each instrument. Nickel plated sight tube or telescope. 12 inches long.

No. 99B has plain sight tube, no lenses, with small eye aperture and cross wires.

No. 99F telescope is adjusted to long distances and has cross wires. All have long legs.

Nos.	Each	Level vial	Wt. each, lbs.
99B	\$20.00	Plain	20
99F	40.00	Ground	20

Iron Target without pole....Each \$1.50

One in a wood carrying case.

PLUMB BOBS

IRON

Japanned Cast Iron Adjusted Top

Nos.	Per dozen	Wt. ea., oz.	Diam., in.
1	\$1.35	9	1½
1¼	2.50	18	1¾
1½	3.40	24	2
5	4.60	44	2½

No. 1, one dozen; balance, half dozen in a box.

Nickel Plated Cast Iron Adjusted Top

Nos.	Per dozen	Wt. each, oz.
N28	\$2.90	6
N30	3.65	9
N31	5.25	12

No. 28, ten in a box; balance, five in a box.



Hexagon

Steel Brass Plated

Adjusted top, hexagon shape prevents rolling.

Nos.	Per dozen	Wt. each, oz.
180	\$4.00	8
1200	5.00	12

One-half dozen in a box.

Cast Brass

Lead filled, screw top, steel pointed.

Nos.	Each	Wt. each, oz.
6	\$1.25	11½
8	1.40	16

Five in a box.



Brass

Lathe turned from solid steel bar. Caps are removable, steel points are screwed in and may be replaced when worn. Perfect balance. Polished.

Nos.	Each	Wt. each, oz.
50A	\$1.20	4
50B	1.50	8
50C	1.85	12
50D	2.40	16
50E	4.15	24

One in a box.

Starrett Mercury

Holds string without making or untying knots. Made from solid steel and filled with mercury. Complete with silk line.

No. 87

Lth., in.	Each	Diam., in.	Wt. each, oz.
4	\$1.80	½	3½
5	2.40	¾	6
5½	3.00	¾	12
6	3.60	1	16

One in a box.



DRAWING KNIVES

SWAN



Razor Blade, Stationary Handle

Solid crucible steel blade, hardwood handle, heavy steel caps and ferrules.

Length blade, in.	Per dozen	Wt. per doz., lbs.
6	\$13.50	12
8	13.50	13½
10	15.60	15
12	18.00	16½

SWAN CARRIAGE MAKERS



Blade Beveled on Both Sides Stationary Handles

Solid crucible steel blade, hardwood handle. Heavy steel caps and ferrules. Length blade 8 inches.

Per dozen
No. 7482—Wt. per dozen 16 lbs....\$24.00

SWAN LINEMENS



Heavy Blade, Stationary Handle

Solid crucible steel blade, hardwood handle, heavy steel caps and ferrules.

Length blade, in.	Per dozen	Wt. per doz., lbs.
10	\$36.00	30
12	43.20	33
14	50.40	36

BUCK BROS.



Razor Blade, Stationary Handles

Solid forged steel blade, black finish. Nickel plated steel ferrules and caps. Polished hardwood handles. Length blade 8 inches.

Per dozen
No. 71½—Wt. per dozen 16 lbs....\$15.85

All above, one-half dozen in a box.

DRAWING KNIVES

BUCK BROS. AMATEUR



Stationary Handles

Forged steel blades, polished, hardwood handles, Nickel plated ferrules.

Length blade, 5½ inches.

No. 71—Wt. per dozen 10 lbs.\$17.00

One-half dozen in a box.

PEXTO



Folding Handles

Blades forged from special steel, tempered and polished; handles adjustable to four different positions; hardwood grips. Width of blade 1½ in.

No. 10

Length blade, in.	Per dozen	Wt. per doz., lbs.
8	\$28.00	15¾
10	30.50	18

One-half dozen in a box.

PEXTO PONY



Stationary Handles

Blade forged from special steel, full polished. Round ebonized handles with heavy ferrules, handles set at 45 degrees with blade. Blade ¾ inch wide. Length 4 inches.

Per dozen

No. 4—Wt. per dozen 3½ lbs.\$8.50

One-half dozen in a box.

CORNERING TOOLS

STANLEY



For rounding sharp edges. Different size cutter at each end. Used by pattern makers, etc.

Nos.	Per doz.	Cutter, in.	Length, in.	Wt. per doz., lbs.
28	\$5.00	⅜-½	5½	1¼
29	5.20	¾-1¼	5½	1½

One-half dozen in a box.

SPOKE SHAVES

FLATHERS



Cast steel blade, hardwood handle.

Nos.	Per dozen	Face	Blade, in.	Wt. per doz., lbs.
49F	\$15.20	Flat	1½	1
49R	16.50	Round	2	1

One-half dozen in a box.

STANLEY ADJUSTABLE CUTTERS



Raised Handles

Tempered and sharpened steel cutters. Adjustable endwise and sidewise by adjusting screws. Japanned finish. No. 151 cast iron handles. No. 151M malleable iron handles.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
151	\$ 9.50	\$2.20	10	2½	8½
151M	12.50	2.20	10	2½	8½



Straight Handles

Tempered and sharpened steel cutters adjustable endwise and sidewise by adjusting screws. Cast iron handles. Japanned.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
152	\$9.50	\$2.20	10	2½	10

STANLEY DOUBLE IRON



Curved Handles

Tempered and sharpened steel cutter. Cutter and cap iron fastened by thumb screw for even pressure on cutting edge. Cast iron handles. Japanned.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
51	\$6.30	\$2.20	10	2½	8¼



Straight Handles

Tempered and sharpened steel cutter. Cutter and cap iron fastened by thumb screw for even pressure on cutting edge. Cast iron handles. Japanned.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
52	\$6.30	\$2.20	10	2½	8

All above, one-half dozen in a box.

SPOKE SHAVES

STANLEY ADJUSTABLE MOUTH



Raised Handles

Tempered and sharpened steel cutter. Mouth can be opened or closed for coarse or fine work. Cast iron handles. Japanned.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
53	\$8.40	\$2.20	10	2½	4½

STANLEY DOUBLE IRON, LIGHT



Straight Handles, Straight Bottom

Tempered and sharpened steel cutter. Cutter and plate fastened by thumb screw. Cast iron handles. Japanned.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
64	\$4.20	\$1.80	9	1¾	5½

STANLEY, TWO CUTTERS



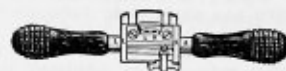
Straight Handles, One Hollow and One Straight Cutter

Tempered and sharpened steel cutter. Cast iron handles. Japanned.

Nos.	Per doz.	Extra cutters per doz.	Lth., in.	Width, in.	Wt. per doz., lbs.
60	\$10.50	\$1.90	11	1½	8½

All above, one-half dozen in a box.

STANLEY UNIVERSAL



Two detachable bottoms, one for straight and one for curved work. Rosewood handles, one can be screwed in top for close work. Nickel plated.

Nos.	Each	Cutter, each	Lth., in.	Width, in.	Wt. ea., lbs.
67	\$2.30	\$0.40	9¼	1¾	¾

One in a box.

CHISELS

STANLEY EVERLASTING

Blade, shank and head forged from one-piece tool steel. Ferrule is assembled by swaging it into double taper in the shank of chisel. Selected hickory handle.



Beveled Edge Butt, Socket

Length of blade 3 1/4 inches.

No. 50

Width, inches	Each	Lgth. over all, in.	Wt. per doz., lbs.
1/8	\$1.30	8	4
1/4	1.30	8	4 1/4
3/8	1.30	8	4 1/2
1/2	1.30	8	4 3/4
5/8	1.40	8	5
3/4	1.40	8	5 1/2
7/8	1.50	8	5 3/4
1	1.50	8	6 1/4
1 1/4	1.70	9	8 1/4
1 1/2	1.90	9	10
1 3/4	2.10	9	10 1/2
2	2.40	9	12



Beveled Edge Pocket, Socket

Length of blade 4 1/2 inches.

No. 40

Width, inches	Each	Lgth. over all, in.	Wt. per doz., lbs.
1/8	\$1.40	9	4
1/4	1.40	9	4 1/2
3/8	1.40	9	4 3/4
1/2	1.40	9	5
5/8	1.50	9	5 1/4
3/4	1.50	9	6
7/8	1.60	9	6 1/4
1	1.60	9	7
1 1/4	1.80	10 1/4	9
1 1/2	2.00	10 1/4	10 1/2
1 3/4	2.20	10 1/4	12
2	2.40	10 1/4	15



Beveled Edge Firmer, Socket

Length of blade, 5 1/2 inches.

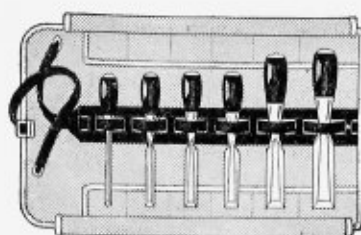
No. 20

Width, inches	Each	Lgth. over all, in.	Wt. per doz., lbs.
1/8	\$1.50	11 1/4	5
1/4	1.50	11 1/4	5 1/4
3/8	1.50	11 1/4	5 1/2
1/2	1.50	11 1/4	5 3/4
5/8	1.60	11 1/4	6
3/4	1.60	11 1/4	7
7/8	1.80	11 1/4	7 1/2
1	1.80	11 1/4	8 1/2
1 1/4	2.00	12 1/4	11
1 1/2	2.20	12 1/4	12 1/2
1 3/4	2.40	12 1/4	14
2	2.60	12 1/4	17

All above, one-half dozen in a box.

CHISELS IN SETS

STANLEY EVERLASTING

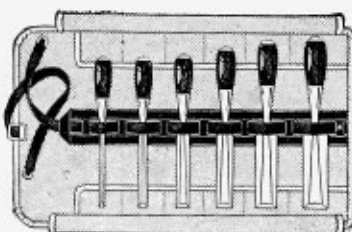


Beveled Edge Butt, Socket

Length of blade, 3 1/4 inches. Brown heavy waterproof roll, strongly sewed.

Set consists of six No. 50 chisels one each, 1/4, 1/2, 3/4, 1, 1 1/4 and 1 1/2 inches.

No. 120—Wt. per set 4 1/4 lbs. \$9.80



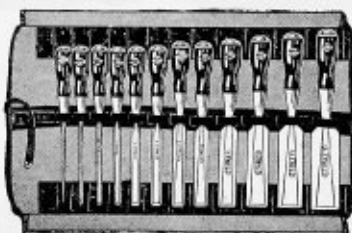
Beveled Edge Pocket, Socket

Length of blade, 4 1/2 inches.

Brown heavy waterproof roll. Strongly sewed. Set No. 110 contains six No. 40 chisels one each, 1/4, 1/2, 3/4, 1, 1 1/4, 1 1/2 inches.

Set No. 210 contains nine No. 40 chisels one each: 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2 inches.

No.	Per set	Wt. per set, lbs.
110	\$10.40	4 1/4
210	15.00	5 1/2



Beveled Edge Firmer, Socket

Length blade 5 1/2 inches. Brown heavy waterproof roll strongly sewed.

Set consists of twelve No. 20 chisels, one each 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2 inches.

No. 701—Wt. per set 9 1/4 lbs. \$23.30

All above, one set in a box.

CHISELS

STANLEY DEFIANCE



Beveled Edge Butt, Socket

For ordinary or household use, blade and socket forged in one piece from high carbon steel. Leather tipped seasoned hickory handles.

Length of blade 3 1/2 inches.

No. 1251

Width, inches	Per dozen	Lgth. over all, in.	Wt. per doz., lbs.
1/4	\$ 7.20	9 1/2	2 1/4
1/2	7.20	9 1/2	2 1/2
3/4	7.92	9 1/2	3
1	8.40	10 1/2	3 1/2
1 1/4	9.20	10 1/2	5
1 1/2	10.20	10 1/2	6

One-half dozen in a box.

SWAN



Plain Edge, Firmer Socket

Solid crucible steel blade, selected hickory handles. Length blade 6 1/2 inches, length over all 13 1/2 inches.

No. 1010

Wth., in.	Per doz.	Wt. per doz., lbs.	Wth., in.	Per doz.	Wt. per doz., lbs.
1/8	\$12.50	3 1/2	3/8	\$16.00	7 1/2
1/4	12.50	4	1	16.50	8
3/8	12.50	4 1/2	1 1/4	18.50	10
1/2	12.50	5	1 1/2	20.00	12
5/8	14.00	6 1/2	1 3/4	22.00	14
3/4	14.50	7	2	23.00	15

One-half dozen in a box.



Beveled Edge, Firmer Cabinet Socket

Solid crucible steel blade, hickory handle, leather capped. Blade is tapered to back of chisel. Length blade 4 1/2 inches, length over all 12 inches.

No. 1035 1/2

Wth., in.	Per doz.	Wt. per doz., lbs.	Wth., in.	Per doz.	Wt. per doz., lbs.
1/8	\$14.00	2 1/2	3/8	\$18.00	6
1/4	14.00	2 3/4	1	18.50	7
3/8	14.00	3	1 1/4	20.50	8
1/2	14.00	4	1 1/2	22.00	9
5/8	15.50	4 1/2	1 3/4	24.00	9 1/2
3/4	16.00	5	2	25.00	10 1/2

Add \$1.00 dozen net for beveled edge.

One-half dozen in a box.

CHISELS BUCK BROS.



Beveled Edge, Butt, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle. Solid cast brass ferrule.

Length of blade $3\frac{1}{4}$ inches.

No. 4			
Width, inches	Per dozen	Lgth. over all, in.	Wt. per doz., lbs.
$\frac{1}{4}$	\$ 8.80	9	$2\frac{1}{2}$
$\frac{3}{8}$	8.80	9	3
$\frac{1}{2}$	9.50	9	$3\frac{1}{2}$
$\frac{5}{8}$	10.00	9	$3\frac{3}{4}$
$\frac{3}{4}$	10.55	9	4
$\frac{7}{8}$	10.80	9	$4\frac{1}{4}$
1	11.60	9	$4\frac{1}{2}$
$1\frac{1}{4}$	15.15	9	5
$1\frac{1}{2}$	17.30	9	$5\frac{1}{2}$
$1\frac{3}{4}$	21.35	9	6
2	24.00	9	$6\frac{1}{2}$

Note—Can be furnished with leather handle as illustrated.



Beveled Edge, Butt, Socket

Extra quality steel blade, tempered and sharpened. Applewood handle.

Length of blade, $3\frac{3}{4}$ inches.

No. 39			
Width, inches	Per dozen	Lgth. over all, in.	Wt. per doz., lbs.
$\frac{1}{4}$	\$11.10	7	$3\frac{1}{2}$
$\frac{3}{8}$	11.10	7	4
$\frac{1}{2}$	11.80	7	$4\frac{1}{2}$
$\frac{5}{8}$	12.65	7	$4\frac{3}{4}$
$\frac{3}{4}$	13.50	7	5
$\frac{7}{8}$	14.15	7	$5\frac{1}{4}$
1	15.00	7	$5\frac{1}{2}$
$1\frac{1}{4}$	17.10	7	6
$1\frac{1}{2}$	18.50	7	$6\frac{1}{2}$

Note—Can be furnished with leather handle as illustrated.



Plain Edge, Firmer, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle. Solid cast brass ferrule.

No. 2				
Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$ 6.25	$3\frac{1}{2}$	$9\frac{1}{4}$	$2\frac{3}{4}$
$\frac{1}{4}$	6.25	$3\frac{1}{2}$	$9\frac{1}{4}$	3
$\frac{3}{8}$	6.25	5	10	$3\frac{1}{4}$
$\frac{1}{2}$	6.65	5	10	$4\frac{1}{4}$
$\frac{5}{8}$	7.30	$5\frac{1}{4}$	11	$4\frac{1}{2}$
$\frac{3}{4}$	7.90	$5\frac{1}{4}$	11	5
$\frac{7}{8}$	8.70	$5\frac{1}{4}$	$11\frac{1}{4}$	$5\frac{1}{4}$
1	9.15	$5\frac{1}{2}$	$11\frac{1}{4}$	$5\frac{1}{2}$
$1\frac{1}{4}$	11.90	$6\frac{1}{2}$	$12\frac{1}{4}$	7
$1\frac{1}{2}$	14.30	$6\frac{1}{2}$	$13\frac{1}{2}$	$7\frac{1}{2}$
$1\frac{3}{4}$	17.05	$6\frac{1}{2}$	$13\frac{1}{2}$	$8\frac{1}{2}$
2	19.95	$7\frac{1}{8}$	$13\frac{3}{4}$	$10\frac{1}{2}$

All above, one-half dozen in a box.

CHISELS BUCK BROS.



Beveled Edge, Firmer, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle. Solid cast brass ferrule.

No. 30				
Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$ 8.80	$3\frac{1}{2}$	$9\frac{1}{4}$	$1\frac{1}{8}$
$\frac{1}{4}$	8.80	$3\frac{1}{2}$	$9\frac{1}{4}$	$1\frac{1}{8}$
$\frac{3}{8}$	8.80	5	10	$1\frac{1}{8}$
$\frac{1}{2}$	9.50	5	10	$1\frac{1}{8}$
$\frac{5}{8}$	10.10	$5\frac{1}{4}$	11	2
$\frac{3}{4}$	10.55	$5\frac{1}{4}$	11	$2\frac{1}{4}$
$\frac{7}{8}$	11.00	$5\frac{1}{4}$	$11\frac{1}{4}$	$2\frac{1}{2}$
1	11.60	$5\frac{1}{4}$	$11\frac{1}{4}$	3
$1\frac{1}{4}$	15.15	$6\frac{1}{2}$	$12\frac{3}{4}$	$3\frac{3}{8}$
$1\frac{1}{2}$	17.15	$6\frac{1}{2}$	$13\frac{1}{2}$	$3\frac{3}{8}$
$1\frac{3}{4}$	21.35	$6\frac{1}{2}$	$13\frac{1}{2}$	$4\frac{3}{4}$
2	24.10	$7\frac{1}{8}$	$13\frac{3}{4}$	$5\frac{1}{4}$



Beveled Edge, Firmer, Socket

Extra quality steel blade, tempered and sharpened. Hickory leather tipped handle.

No. 36				
Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$12.65	5	$11\frac{1}{2}$	$4\frac{1}{2}$
$\frac{1}{4}$	12.65	5	$11\frac{1}{2}$	$5\frac{1}{4}$
$\frac{3}{8}$	12.65	$5\frac{1}{4}$	12	$5\frac{3}{4}$
$\frac{1}{2}$	13.65	$5\frac{1}{4}$	$12\frac{1}{4}$	$7\frac{1}{4}$
$\frac{5}{8}$	14.35	$5\frac{1}{4}$	$12\frac{1}{4}$	8
$\frac{3}{4}$	15.45	$5\frac{3}{4}$	$12\frac{1}{4}$	$8\frac{3}{4}$
$\frac{7}{8}$	16.30	$5\frac{3}{4}$	$12\frac{1}{2}$	10
1	17.10	$5\frac{1}{2}$	13	$11\frac{1}{2}$
$1\frac{1}{4}$	19.60	6	$13\frac{1}{2}$	13
$1\frac{1}{2}$	21.15	$6\frac{1}{4}$	$13\frac{1}{2}$	15
$1\frac{3}{4}$	24.75	$6\frac{1}{2}$	$14\frac{1}{4}$	16
2	27.40	$6\frac{1}{2}$	$14\frac{1}{4}$	17



Beveled Edge, Paring, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle. Solid cast brass ferrule.

No. 32				
Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$12.70	$7\frac{1}{4}$	$11\frac{3}{4}$	3
$\frac{1}{4}$	12.70	$7\frac{1}{4}$	$11\frac{3}{4}$	$3\frac{1}{4}$
$\frac{3}{8}$	12.70	$7\frac{1}{4}$	$12\frac{1}{2}$	$3\frac{1}{2}$
$\frac{1}{2}$	12.95	$7\frac{1}{4}$	$12\frac{1}{2}$	4
$\frac{5}{8}$	14.00	$7\frac{3}{4}$	$13\frac{1}{2}$	5
$\frac{3}{4}$	14.70	$7\frac{3}{4}$	$13\frac{1}{2}$	6
$\frac{7}{8}$	15.40	$8\frac{1}{4}$	14	7
1	17.00	$8\frac{3}{4}$	14	8
$1\frac{1}{4}$	21.90	$9\frac{1}{2}$	$15\frac{3}{4}$	10
$1\frac{1}{2}$	25.00	$9\frac{1}{2}$	$15\frac{3}{4}$	11
$1\frac{3}{4}$	29.50	10	16	14
2	33.80	10	16	17

All above, one-half dozen in a box.

CHISELS BUCK BROS.



Beveled Edge, Paring, Tanged, Bent Shank

Extra quality steel blade, tempered and sharpened. Applewood handle. Solid cast brass ferrule.

No. 15 $\frac{1}{4}$				
Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$16.25	6	$11\frac{3}{8}$	$3\frac{1}{2}$
$\frac{1}{4}$	16.25	6	$11\frac{1}{2}$	4
$\frac{3}{8}$	16.25	$6\frac{1}{4}$	12	$4\frac{1}{2}$
$\frac{1}{2}$	16.60	$6\frac{1}{4}$	$12\frac{1}{8}$	5
$\frac{5}{8}$	18.25	$6\frac{1}{2}$	$12\frac{1}{2}$	$5\frac{1}{2}$
$\frac{3}{4}$	19.45	$6\frac{3}{4}$	13	$6\frac{1}{2}$
$\frac{7}{8}$	20.40	$6\frac{3}{4}$	$13\frac{1}{2}$	$7\frac{1}{2}$
1	23.10	7	$13\frac{1}{4}$	$8\frac{1}{2}$
$1\frac{1}{4}$	29.70	$7\frac{1}{4}$	$14\frac{1}{2}$	$10\frac{1}{2}$
$1\frac{1}{2}$	34.50	$7\frac{1}{2}$	15	$11\frac{1}{2}$
$1\frac{3}{4}$	40.70	$7\frac{3}{4}$	$15\frac{1}{2}$	$14\frac{1}{2}$
2	47.00	8	16	$17\frac{1}{2}$

One-half dozen in a box.

CHISEL ASSORTMENTS EVERSHARP



High carbon steel blades, hardened and tempered. Sides bevel ground, accurately sharpened. Hardwood leather capped handle, steel ferrule.

Length blade $4\frac{1}{2}$ in., length over all $9\frac{1}{4}$ in. Assortment contains twelve

chisels, four each $\frac{1}{2}$, $\frac{3}{4}$ and 1 inch mounted on a dark green metal stand 18 inches high.

Per assortment
No. 310—Wt. asst. each 5 lbs.\$3.00
One assortment in a carton.

CHISEL ROLLS



Brown Leatherette

Strong binding on edge, with strap and buckle.

Nos.	Each	Holds Chisels
6R	\$1.00	6
12R	1.50	12

Open stock.

TURNING GOUGES BUCK BROS.

Extra Quality Steel, Tempered and Polished

No. 17

Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
1/4	\$ 8.40	6	8 1/2	1 1/2
3/8	8.40	6	9	2
1/2	9.50	6	9 1/2	3
5/8	9.90	6	10	4
3/4	11.60	6	10	5
7/8	13.25	6 1/4	10 1/4	5 3/4
1	15.00	6 1/4	10 1/4	7
1 1/4	19.30	6 1/2	10 1/2	8
1 1/2	25.10	7	11	10
1 3/4	29.65	7	11 3/4	13
2	36.35	7	12 1/4	14

One-half dozen in a box.

TURNING CHISELS BUCK BROS.



Regular Double Bevel

Extra quality steel, tempered and polished.

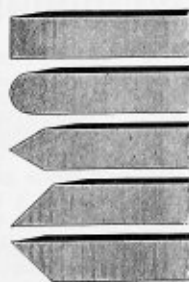
No. 16

Width, inches	Per dozen	Length blade, in.	Lgth. over all, in.	Wt. doz., lbs.
1/8	\$ 6.10	6	8 1/2	1 1/4
1/4	6.10	6	8 1/2	1 1/2
3/8	6.10	6	9	2
1/2	6.85	6	9 1/2	3
5/8	7.50	6	10	4
3/4	8.55	6	10	5
7/8	9.30	6 1/4	10 1/4	5 3/4
1	10.80	6 1/4	10 1/4	7
1 1/4	13.55	6 1/2	10 1/2	8
1 1/2	17.50	7	11	10
1 3/4	21.00	7	11 3/4	13
2	25.10	7	12 1/4	14

One-half dozen in a box.

BUCK BROS. SPECIAL

- No. 16 1/2 Sq. Point.
- No. 16 3/4 Rd. Point.
- No. 16 1/4 Spr. Point.
- No. 16 1/2 Left Skew.
- No. 16 3/4 Rt. Skew.



Same as No. 16 chisels above but with points as illustrated.

Width, inches	Per dozen	Width, inches	Per dozen
1/4	\$ 7.90	1	\$12.80
3/8	8.70	1 1/4	15.50
1/2	10.35	1 1/2	19.30

Note—Specify No. when ordering.

One-half dozen in a box.

TURNING CHISELS DISSTON TOOTH



For Pattern Makers and Wood Turners

High grade file steel, teeth cut on 45 degree angle.

Nos.	Per doz.	Width blade, in.	Hand of skew	Wt. per doz., lbs.
1R	\$18.00	1 1/2	Right	15
1L	18.00	1 1/2	Left	15

One-half dozen in a box.

PARTING TOOLS BUCK BROS. WOODWORKERS



Cutting Off

Extra quality steel, tempered and polished. Blades are thin at edges with a heavy section down the center.

Width, inches	Per dozen	Length, inches	Wt. per doz., lbs.
1/2	\$ 9.00	8 1/2	2 1/2
3/8	10.05	9	3 1/2
3/4	10.95	9 1/2	4 1/2

SIZING TOOLS BUCK BROS. WOODTURNERS



Extra quality steel blade. Japanned steel frame opens to 4 inches.

No. 25—Wt. per doz. 15 lbs.\$26.15

One-sixth dozen in a box.

CARVING TOOL SETS MILLERS FALLS



Tool steel blades, forged bolsters, blades sharpened. Maple handles.

Contains six tools, one each as follows, 3/4 inch, 1/2 inch straight chisels, 1/4, 1/8 inch gouges, 1 1/4 inch skew chisel, V tool.

Length of tool 8 inches.

No. 108—Wt. per set 3/4 lb.\$4.50

One set in a box.

CARVING TOOL SETS MILLERS FALLS



Forged tool steel blades, heat treated and polished, lacquered hardwood handles, nicked ferrules.

Set consists of six tools, one each as follows 3/8-inch straight chisel, 3/8-inch bent gouge, 3/8-inch bent chisel, 3/8-inch U tool, 1/4-inch skew bevel chisel and 3/8-inch veining tool. Length of tools 6 1/4 inches.

No. 106—Wt. per set 3/4 lb.\$3.00

One set in a box.



Hammer forged from finest tool steel blades, fitted with forged bolster that protects handle when mallet is used. Polished and honed blades. Natural finish maple handles, nicked ferrules.

Set consists of nine tools, one each as follows, 1/2-inch, 1/4-inch straight chisels, 1/4-inch, 3/8-inch, 1/2-inch gouges, 1/4-inch curved gouge, 1/4-inch skew chisel, 3/8-inch bent chisel and 1/4-inch V tool.

Length of tools, 8 inches.

No. 109—Wt. per set 2 3/4 lbs.\$8.00

One set in a box.

CHISELS SWAN-FRAMING



Bevel Back, Framing

Chisels $\frac{3}{4}$ in. and smaller. Solid crucible steel, larger sizes have crucible steel blades. Hickory handles. Sizes 1 inch and larger have rings on handles.

Length blade 8 inches, length over all 15 inches.

No. 1013

Wth. in.	Per doz.	Wt. per doz. lbs.	Wth. in.	Per doz.	Wt. per doz. lbs.
$\frac{1}{4}$	\$9.00	8½	1	\$11.00	17½
$\frac{3}{8}$	9.00	10½	1¼	12.00	23
$\frac{1}{2}$	9.00	12	1½	13.00	26
$\frac{5}{8}$	9.50	13	1¾	14.50	29½
$\frac{3}{4}$	10.00	14	2	16.00	33
$\frac{7}{8}$	10.50	16			

One-half dozen in a box.

CARPENTERS' SLICKS SWAN



Oval Back

Crucible steel blade. Polished hard maple handles. Length blade 9 inches.

No.	1012½
Width blade, in.	3
Weight per dozen, lbs.	54
Per dozen	\$76.00

One-quarter dozen in a wood box.

GOUGES SWAN



Outside Bevel, Firmer, Socket

Crucible steel blade. Hickory handles. Length blade 6½ inches; length over all 13½ inches.

No. 1210

Wth. in.	Per doz.	Wt. per doz. lbs.	Wth. in.	Per doz.	Wt. per doz. lbs.
$\frac{1}{4}$	\$9.50	3	$\frac{3}{8}$	\$12.00	7½
$\frac{1}{2}$	9.50	4	1	12.75	8
$\frac{3}{4}$	9.50	4½	1¼	14.25	10½
$\frac{1}{2}$	10.00	5	1½	16.00	12
$\frac{5}{8}$	10.50	5½	1¾	17.50	14
$\frac{3}{4}$	11.25	6	2	20.00	15

One-half dozen in a box.

GOUGES BUCK BROS.



Outside Bevel, Firmer, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle, cast brass ferrule.

No. 8

Width. in.	Per dozen	Length blade, in.	Length over all, in.	Wt. per doz. lbs.
$\frac{1}{4}$	\$ 7.35	3½	9¼	1¾
$\frac{1}{2}$	7.35	3½	9¼	2
$\frac{3}{8}$	7.35	5	10	3
$\frac{1}{2}$	7.75	5	10	3¼
$\frac{5}{8}$	8.40	5¼	11	4¼
$\frac{3}{4}$	9.05	5¼	11	5
$\frac{7}{8}$	9.95	5¼	11¼	5¼
1	10.35	5½	11¼	6
1¼	13.50	6½	12¾	8
1½	16.10	6¾	13½	9
1¾	19.00	6¾	13½	11
2	22.55	7½	13¾	14



Outside Bevel, Firmer, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle. Cast brass ferrule.

No. 10

Width. in.	Per dozen	Length blade, in.	Length over all, in.	Wt. per doz. lbs.
$\frac{1}{4}$	\$ 8.40	3½	9¼	3
$\frac{1}{2}$	8.40	3½	9¼	3½
$\frac{3}{8}$	8.40	5	10	3¾
$\frac{1}{2}$	8.90	5	10	4
$\frac{5}{8}$	9.30	5¼	11	4½
$\frac{3}{4}$	10.10	5¼	11	5
$\frac{7}{8}$	10.90	5¼	11¼	5½
1	11.40	5½	11¼	6
1¼	14.70	6½	12¾	7
1½	17.20	6¾	13½	8
1¾	20.30	6¾	13½	9
2	23.85	7½	13¾	10



Inside Bevel, Paring, Tanged

Extra quality steel blade, tempered and sharpened. Applewood handle. Cast brass ferrule ring.

Regular middle and flat sweep. Specify what is wanted.

No. 14

Width. in.	Per dozen	Length blade, in.	Length over all, in.	Wt. per doz. lbs.
$\frac{1}{4}$	\$12.75	6	11½	3
$\frac{1}{2}$	12.75	6	11½	3¼
$\frac{3}{4}$	12.75	6	11½	3½
$\frac{1}{2}$	13.15	6	11½	4
$\frac{5}{8}$	14.25	7	13¾	5
$\frac{3}{4}$	15.25	7	13¾	6
$\frac{7}{8}$	15.90	7	13¾	7
1	17.90	8½	16	8
1¼	22.40	9¼	17	10
1½	25.65	9¼	17	11
1¾	30.75	9½	17	14
2	35.40	9½	17	17

All above, one-half dozen in a box.

GOUGES BUCK BROS.



Inside Bevel, Paring, Tanged, Bent Shank

Extra quality steel blade tempered and sharpened. Applewood handle. Cast brass ferrule.

Regular, middle or flat sweep, specify what is wanted.

No. 15½

Width. in.	Per dozen	Length blade, in.	Length over all, in.	Wt. per doz. lbs.
$\frac{1}{4}$	\$15.60	6	11¾	3¼
$\frac{1}{2}$	15.60	6	11½	3½
$\frac{3}{8}$	15.60	6¼	12	3¾
$\frac{1}{2}$	17.00	6¼	12½	4¼
$\frac{5}{8}$	18.40	6½	12½	5½
$\frac{3}{4}$	19.40	6¾	13	6½
$\frac{7}{8}$	20.20	6¾	13½	7½
1	22.40	7	13¾	8½
1¼	27.95	7¼	14½	10½
1½	31.15	7½	15	11½
1¾	35.50	7¾	15½	14½
2	40.80	8	16	17½

SWEEPS OF GOUGES

Regular Sweep.

Middle Sweep.

Flat Sweep.

Showing sweeps for Nos. 14 and 15½ paring gouges as listed on this page. Unless otherwise specified regular sweep will be furnished.

TURNING GOUGES AND CHISELS DISSTON-KEYSTONE



For home workshop service.

Blades made of fine tool steel with strong drop forged tang.

Each chisel hardened and ground. With correct bevel brass ferrules. 9 in. wood handles.

Nos.	Per dozen	Size, in.	Pattern	Length, in.
K1	\$7.70	$\frac{1}{2}$	Parting	4¾
K1	7.70	$\frac{1}{2}$	Rd. Nose	6½
K1	7.70	$\frac{1}{2}$	Spear Pt.	4¾
K1	7.70	$\frac{1}{4}$	Gouge	4¾
K1	7.70	$\frac{1}{2}$	Gouge	4¾
K1	7.70	$\frac{1}{2}$	Skew	4¾
K1	10.80	$\frac{3}{4}$	Gouge	6½
K1	10.80	1	Skew	6½

All above, one-half dozen in a box.

Set of 8 tools, $\frac{1}{2}$ in. parting; $\frac{1}{2}$ in. rd. nose; $\frac{1}{2}$ in. spear point; $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ in. gouge; $\frac{1}{2}$, 1 in. skew point chisel.

Per set
K1S\$5.60

Set of 6 tools, $\frac{1}{2}$ in. parting; $\frac{1}{2}$ in. rd. nose; $\frac{1}{2}$ in. spear point; $\frac{1}{2}$ in. skew; $\frac{1}{4}$, $\frac{1}{2}$ in. gouges.

Per set
No. K6S\$3.90
One set in a box.

CHISEL HANDLES
SOCKET FIRMER



Hickory, Leather Tip

Assorted for $\frac{1}{8}$ to 2 in. chisels.

Per dozen

No. 131—Wt. per dozen 2 lbs.\$1.25



Hickory, Malleable Iron Ring

Assorted for $\frac{1}{8}$ to 2 in. chisels.

Per dozen

No. 31R—Wt. per dozen 2 $\frac{1}{4}$ lbs.\$1.25

SOCKET FRAMING



Hickory, Malleable Iron Ring

Assorted for $\frac{1}{8}$ to 2 in. chisels.

Per dozen

No. 51—Wt. per dozen 2 $\frac{1}{2}$ lbs.\$1.25



Hickory, Leather Tip

Assorted for $\frac{1}{8}$ to 2 inch chisels.

Per dozen

No. 151—Wt. per dozen 2 $\frac{1}{2}$ lbs.\$1.25

SOCKET BUTT



Hickory, Leather Tip

Assorted for 1 to 2 inch chisels.

Per dozen

No. 131B—Wt. per dozen 1 $\frac{1}{2}$ lbs.\$1.25

TANG BUTT



Hickory, Leather Tip, Brass Ferrule

Assorted for 1 to 2 in. chisels.

Per dozen

No. 111B—Wt. per dozen 1 $\frac{1}{2}$ lbs.\$1.50

TANG FIRMER



Hickory, Leather Tip, Brass Ferrule

Assorted for $\frac{1}{8}$ to 2 inch chisels.

Per dozen

No. 111—Wt. per dozen 2 lbs.\$1.50

All above, one dozen in a box.

CHISEL HANDLES
BUCK BROS. TANG BUTT



Applewood, Polished, Brass Ferrule

Assorted for chisels 1 to 2 inches.

Per dozen

No. 4B—Wt. per dozen 1 $\frac{1}{2}$ lbs.\$3.50

BUCK BROS. TANG FIRMER



Polished Maple, Heavy Brass Ferrule

Assorted for chisels $\frac{1}{8}$ to 2 inches.

Per dozen

No. 92—Wt. per dozen 2 lbs.\$2.40



Applewood, Polished, Brass Ferrule

Assorted for chisels $\frac{1}{8}$ to 2 inches.

Per dozen

No. 93—Wt. per dozen 2 lbs.\$3.50

All above, one dozen in a box.

TURNING TOOL HANDLES
BUCK BROS.



Polished Maple, Heavy Brass Ferrule

Length 9 to 10 inches. Assorted for $\frac{1}{2}$ to 2 inch turning tools.

Per dozen

No. 99—Wt. per dozen 4 lbs.\$5.75

Open stock.

FILE HANDLES
STEARNS



Japanned iron. Adjustable with steel set screw. For files up to 12 inches. Length 5 inches.

Per dozen

No. 5S—Wt. per dozen 3 $\frac{1}{2}$ lbs.\$1.50

One dozen in a box.



Soft Wood, Polished Steel Ferrule

Nos.	Per doz.	Length, in.	Diam., in.	Wt. per doz., lbs.
1-C	\$0.30	4 $\frac{1}{4}$	1 $\frac{1}{8}$	1
3-C	.40	4 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$
5-C	.60	5	1 $\frac{1}{2}$	1 $\frac{3}{4}$

Three dozen in a box.

FILE HANDLES
LUTZ



Long Ferrule, Will Not Split

Selected birchwood, files remain rigid in handle. Split ferrules.

Nos.	Per doz.	Length, in.	For files, in.	Wt. per doz., lbs.
1L	\$0.75	4	3 to 6	1 $\frac{1}{2}$
2L	.85	4 $\frac{1}{2}$	6 to 8	2
3L	1.00	4 $\frac{3}{4}$	8 to 12	3
4L	1.25	5 $\frac{1}{2}$	12 to 16	4
5L	1.50	5 $\frac{3}{4}$	16 to 20	5

One dozen in a box.

DISSTON



Coil Spring Steel Ferrule

File can be removed and replaced easily without injury to handle which may be used repeatedly. The spring-steel ferrule holds tang of file tightly and prevents slipping.

Smooth finish, selected wood, comfortable shaped grip.

Nos.	Per doz.	Length, in.	For files, in.	Wt. per doz., lbs.
1D	\$0.85	4	3 to 6	3 $\frac{1}{4}$
2D	1.10	4 $\frac{3}{4}$	6 to 10	1 $\frac{1}{4}$
3D	1.20	4 $\frac{5}{8}$	10 to 12	1 $\frac{3}{4}$
4D	1.45	5 $\frac{1}{8}$	14	2
6D	1.80	6	3-7 taper	1 $\frac{1}{2}$

One dozen in a box.

HYRO SHUR GRIP



Screws on to Tang of File

Cuts its own thread. Selected hardwood, pressed steel ferrule.

Nos.	Per doz.	Length, in.	For files, in.	Wt. per doz., lbs.
2G	\$2.00	4	3 to 6	3 $\frac{1}{4}$
3G	2.00	4 $\frac{1}{2}$	6 to 10	1 $\frac{1}{4}$
4G	2.50	5	10 to 14	2 $\frac{1}{8}$
5G	3.00	5 $\frac{1}{2}$	14 to 18	2 $\frac{3}{4}$

One dozen in a box.

NICHOLSON



Spun Brass Ferrule

Birchwood, carefully smoothed and varnished.

Nos.	Per doz.	Length, in.	For files, in.	Wt. per doz., lbs.
4N	\$1.60	4	6	2
3N	2.00	4 $\frac{1}{2}$	8	2 $\frac{1}{2}$
2N	2.40	4 $\frac{3}{4}$	10	3
1N	2.80	5 $\frac{1}{4}$	12	3 $\frac{1}{2}$
0N	3.20	5 $\frac{3}{4}$	14	4

One dozen in a box.

HANDLES ADZE EYE HAMMER



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
12	\$3.90	4
14	3.90	5

Beauty

Medium grade second growth hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
12	\$2.40	4
14	2.40	5

MACHINISTS HAMMER



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.	Length, inches	Per dozen	Wt. per doz., lbs.
12	\$3.90	3	16	\$4.30	4
14	3.90	3½	18	4.90	4½

Beauty

Medium grade second growth hickory.

Length, inches	Per dozen	Wt. per doz., lbs.	Length, inches	Per dozen	Wt. per doz., lbs.
14	\$2.40	3½	18	\$2.80	4½
16	2.60	4			

RIVETING HAMMER



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
12	\$3.90	2½
14	3.90	3

BRICKLAYERS HAMMER



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
12	\$3.90	4½

BLACKSMITHS HAMMER



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.	Length, inches	Per dozen	Wt. per doz., lbs.
14	\$3.90	4	20	\$5.80	7
16	4.30	5	22	6.80	8
18	4.90	6	24	8.20	9

All above, one dozen in a crate.

HANDLES REGULAR HATCHET



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.	Length, inches	Per dozen	Wt. per doz., lbs.
13	\$3.90	5	15	\$3.90	6½
14	3.90	6			

Beauty

Medium grade second growth hickory.

Length, inches	Per dozen	Wt. per doz., lbs.	Length, inches	Per dozen	Wt. per doz., lbs.
12	\$2.40	5	15	\$2.40	6½
14	2.40	6			

LATHING HATCHET



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
13	\$3.90	3

BROAD HATCHET



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
18	\$5.30	7

HOUSE AXE



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
19	\$6.80	9

BOYS' SCOUT AXE



Peerless

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
14	\$4.50	6

All above, one dozen in a box.

BOYS' AXE



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
28	\$9.60	12

Two dozen in a crate.

HANDLES

BENT SINGLE BIT AXE

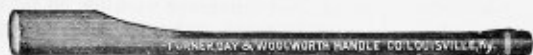


Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$12.20	22

STRAIGHT RAFTER AXE



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$12.20	22

BENT RAFTER AXE

Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$12.20	22

DOUBLE BIT AXE



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$12.20	22

CARPENTERS' ADZE



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
34	\$12.60	19

NAPPING HAMMER



Hercules

Selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$8.80	22

TOOL



Peerless

Extra selection of all white, good weight hickory free from all defects.

Length, inches	Per dozen	Wt. per doz., lbs.
24	\$8.20	14

All above, two dozen in a case.

HANDLES

SLEDGE



Hercules

Selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.	Length, inches	Per dozen	Wt. per doz., lbs.
28	\$6.60	14	32	\$7.60	18
30	7.60	16	36	8.80	22

EAGLE

Second growth mixed red and white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$5.20	22

PICK OR MATTOCK



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$15.20	30

CLAY PICK



Eagle

Second growth mixed red and white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$8.80	30

COAL PICK



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
32	\$12.20	23
36	12.20	27

POST MAUL



Triumph

High grade selected second growth white hickory.

Length, inches	Per dozen	Wt. per doz., lbs.
36	\$10.60	20

All above, two dozen in a case.

AXES

PLUMB DREADNAUGHT SINGLE BIT, UNHANDLED



Dayton Pattern

Forged from one solid piece of special analysis steel, the head and eye are toughened by a double heat treatment. The bits are hardened and electrically tempered for two inches back of the cutting edge, permitting repeated grinding and adding to the life of the axe. Rustless black finish.

No. 10—Assorted weights, $3\frac{1}{2}$ to $4\frac{1}{2}$ lbs.; wt. per dozen 52 lbs. \$26.00
One dozen in a box.

PLUMB DREADNAUGHT DOUBLE BIT, UNHANDLED



Western Pattern

Forged from one solid piece of special analysis steel, the head and eye are toughened by a double heat treatment. The bits are hardened and electrically tempered for two inches back of the cutting edge, permitting repeated grinding. Rustless black finish.

No. 60—Assorted weights, $3\frac{1}{2}$ to $4\frac{1}{2}$ lbs.; wt. per dozen 54 lbs. \$34.00
One dozen in a box.

PLUMB DREADNAUGHT SINGLE BIT, HANDLED



Dayton Pattern

Forged from one solid piece of special analysis steel, head and eye toughened by a double heat treatment. The bits are hardened and electrically tempered for two inches back of the cutting edge, permitting repeated grinding. Rustless black finish. 36 in. mahogany hickory handle with patent take-up wedge.

Nos.	30	31
Wt. heads, lbs.	$3\frac{1}{2}$ to $4\frac{1}{2}$	4 to 5
Wt. dozen, lbs.	68	74
Per dozen	\$34.00	37.00

One-half dozen in a crate.

PLUMB DREADNAUGHT DOUBLE BIT, HANDLED



Western Pattern

Forged from one-piece of special analysis steel, head and eye toughened by a double heat treatment. The bits are hardened and electrically tempered for two inches back of the cutting edge, permitting repeated grinding. Rustless black finish. 36 in. mahogany hickory handle with patent take-up wedge.

Nos.	70	71
Wt. heads, lbs.	$3\frac{1}{2}$ to $4\frac{1}{2}$	4 to 5
Wt. dozen, lbs.	72	78
Per dozen	\$42.00	45.00

One-half dozen in a crate.

AXES

PLUMB AUTOGRAPH SINGLE BIT, HANDLED



Dayton Pattern

Forged from one solid piece of special analysis steel, head and eye toughened by double heat treatment, bits hardened and electrically tempered for two inches back of cutting edge. Rustless black finish with gold bevels and autograph etching. 36 in. waxed and polished grade AA second growth hickory handle with patent take-up wedge.

No. 20—Assorted $3\frac{1}{2}$ to $4\frac{1}{2}$ lb. heads; wt. per dozen 68 lbs. \$39.00
Per dozen

SER-V-ALL SINGLE BIT, HANDLED



Dayton Pattern

Forged steel, black forge finish, 36 in. stained hickory handle.

No. 201— $3\frac{1}{2}$ lb. head; wt. per dozen 64 lbs. \$26.00
Per dozen

MAGIC CITY MINERS', HANDLED



Dayton Pattern

Forged steel, blue finish, polished bit, 36 in. straight hickory handle.

No. 48—Assorted $3\frac{1}{2}$ to $4\frac{1}{2}$ lb. heads; wt. per dozen 68 lbs. \$25.50
Per dozen

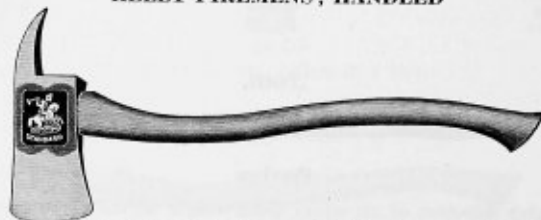
KELLY FLINT EDGE RAFTING, HANDLED



Forged high grade steel, black cannon finish, cutting edge honed, 36 in. straight hickory handle.

No. 80—5 lb. head; wt. per dozen 84 lbs. \$42.00
Per dozen

KELLY FIREMENS', HANDLED



Forged high grade steel, tempered blade, hardened pick point, red finish, polished blade and pick. 36 in. red painted hickory handle.

No. 129—Assorted 4 to 5 lb. heads; wt. per dozen 80 lbs. \$50.00
All above, one-half dozen in a crate.
Per dozen

BOYS' AXES

MAGIC CITY



Forged steel, blue finish, polished bit, 28 in. hickory handle.

Per dozen
No. 2—2¼ lb. head; wt. per dozen 42 lbs.\$18.00

One-half dozen in a crate.

HOUSE AXES

PLUMB



Hand forged from one-piece special analysis steel, heat treated. Fine keen cutting edge; black, non-rusting finish head. 19 in. mahogany second growth hickory handle with take-up wedge.

Per dozen
No. HF665—Head 2¼ lbs.; wt. per dozen 36 lbs.\$19.50

One-half dozen in a box.

BOY SCOUT AXES

PLUMB OFFICIAL



Hand forged steel, rustless black finish, gold official insignia, nail slot, 14 in. mahogany hickory handle.

Per dozen
No. 680—1¼ lb. head; wt. per doz. 22 lbs.\$18.00

No. 682—Same as No. 680 with leather sheath; wt. per dozen 24 lbs.23.00

One-half dozen in a box.

BRIDGEPORT OFFICIAL



With Leather Sheath

Steel head and handle with inlaid hickory grip. Head cannot come off and handle cannot loosen or break. High quality steel hardened and tempered.

Per dozen
No. 427—13½ in. long; wt. each 27 oz.; wt. per dozen 23 lbs.\$25.00

One in a gift box.

BROAD AXES

PLUMB



Pennsylvania Pattern

Forged steel, rustless black finish.

Per dozen
No. 692—12 in. blade; wt. each 7 lbs.\$65.00

One-half dozen in a box.

ADZES

PLUMB CARPENTERS'



Half Head

Hand forged, non-rusting finish.

Made of one piece of special analysis steel, polished edge.

Each
No. 740—4 in. cut; wt. per dozen 50 lbs.\$3.00
Twelve in a box.



Full Head

Hand forged, non-rusting finish. Made of one piece of special analysis steel, polished edge.

Each
No. 770—5 in. cut; wt. per dozen 66 lbs.\$3.00
Twelve in a box.

PLUMB SHIP CARPENTERS'



Spur Head

Hand forged, non-rusting finish, made of one piece of special analysis steel, polished edge.

Each
No. 780—Assorted 4 and 4½ in. width blades; wt. per dozen 42 lbs.\$3.50

Twelve in a box.

HATCHETS

G-T-W MASTER HALF



Solid tool steel, polished, bell poll. Octagon hickory handle. The best that money can buy.

Per dozen
No. 320—Size 2, cut 3½ in., wt. head 1½ lbs.; wt. per dozen 24 lbs.\$30.00

One-half dozen in a box.

G-T-W CAR BUILDERS' HALF



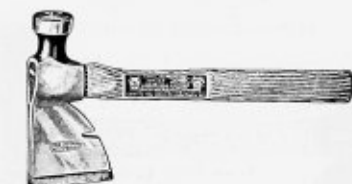
Solid tool steel, round poll, octagon neck, fire bronze finish, selected hickory handle.

Smooth Head				
Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.
318	\$24.00	2	3½	1½
318½	26.00	3	3¾	1¾

Scored Head				
Nos.	Per dozen	Size	Wt. head, lbs.	Wt. doz., lbs.
0318	\$26.00	2	1½	24
0318½	27.50	3	1¾	28

One-half dozen in a box.

G-T-W THIN BLADE HALF



Solid tool steel, polished, adze eye, bell poll, selected hickory handle.

Per dozen
No. 316—Size 2, cut 3¼ in., wt. of head 1¼ lbs. wt.; per dozen 20 lbs.\$30.00

One-half dozen in a box.

HATCHETS G-T-W HALF



Solid tool steel, olive bronze finish, selected hickory handle.

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
336	\$18.90	1	3 1/4	1 1/4	20
338	20.00	2	3 1/2	1 1/2	24
340	21.00	3	3 3/4	1 3/4	28

One-half dozen in a box.

PLUMB HALF



Forged steel, rustless black finish, mahogany hickory handle with patent take-up wedge.

Plain Face

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
2961	\$19.00	1	3 1/4	1 1/4	22
2962	20.00	2	3 1/2	1 1/2	27
2963	22.00	3	4	1 3/4	31

Checkered Face

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
CH2961	\$20.00	1	3 1/4	1 1/4	22
CH2962	21.00	2	3 1/2	1 1/2	27

One-half dozen in a box, except No. 2963, one-third dozen.



Octagon Poll, Round Neck
Forged steel, rustless black finish mahogany hickory handle with patent take-up wedge.

Per dozen

No. HF2291—Size 2, cut 3 1/2 in., wt. of head 1 lb. 6 oz.; wt. per doz. 28 lbs.	\$24.00
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One-half dozen in a box.



Adze Eye, Bell Poll, Thin Blade

Forged steel, rustless black finish. Mahogany hickory handle with patent take-up wedge.

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
HF530	\$28.40	1	3 1/4	7/8	17
HF531	29.40	2	3 3/4	1 1/8	20

One-half dozen in a box.

HATCHETS PLUMB HALF



Octagon Poll, Round Neck

Forged steel, nickel plated, mahogany hickory handle with patent take-up wedge.

Per dozen

No. 2271—Size 2, cut 3 1/2 in., wt. of head 1 lb. 6 oz.; wt. per dozen 28 lbs.	\$30.00
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One-half dozen in a box.

PLUMB CAR BUILDERS' HALF



Round Poll, Octagon Neck

Forged steel, rustless black finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
CB2	\$25.00	2	3 1/2	1 1/2	24
CB3	27.00	3	3 3/4	1 3/4	28

One-third dozen in a box.

PHILADELPHIA TOOL CO. HALF



Forged steel, black finish, natural finished hickory handles.

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
PTH1	\$14.00	1	3 1/4	1 1/4	22
PTH2	14.50	2	3 1/2	1 1/2	27
PTH3	16.00	3	4	1 3/4	31

One-half dozen in a box.

UNION HALF



Forged steel, black finish, walnut stained hickory handle.

Per dozen

No. 15 1/2—Size 2, cut 3 1/2 in., wt. of head 1 lb. 6 oz.; wt. per dozen 26 lbs.	\$10.00
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One-half dozen in a box.

HATCHETS ESTWING HALF



Forged steel, polished, hardened face and blade, unbreakable handle, grip is constructed of pole leather washers. Head and handle in one piece. Head can't fly off or loosen.

Each

No. E502—Size 2, length 14 in., cut 3 1/2 in.; wt. per dozen 25 lbs.	\$2.25
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One-half dozen in a box.

PLUMB BROAD



Forged steel, rustless black finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Cut, in.	Wt. head, lbs.	Wt. doz., lbs.
2991	\$22.00	1	4	1 1/2	27
2992	25.20	2	4 1/2	1 3/4	33
2993	28.40	3	5	2 1/8	38
2994	31.60	4	5 1/2	2 1/2	43

One-third dozen in a box.

PLUMB RIG BUILDERS'



Octagon Neck, Scored Face

Forged steel, rustless black finish, mahogany hickory handle with patent take-up wedge.

Per dozen

No. RB2—Size 2, cut 3 1/2 inches, wt. of head 2 lbs.; wt. per dozen 38 lbs.	\$33.60
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One-third dozen in a box.

Our line of tools is complete for the mechanic as well as for the home worker.

HATCHETS PLUMB CLAW



Forged steel, rustless black finish, mahoganized hickory handle, patent take-up handle wedge.

Per dozen

No. 2972—Size 2, width of bit 4 in., wt. head 1 lb. 9 oz.; wt. per dozen 29 lbs.\$22.00

One-half dozen in a box.

PHILADELPHIA TOOL CO. SHINGLING



Forged steel, black finish, natural finished hickory handle.

Per dozen

No. PTS2—Size 2, width of bit 4 in., wt. of head 1 lb. 7 oz.; wt. per dozen 27 lbs.\$14.00

One-half dozen in a box.

PHILADELPHIA TOOL CO. LATHING



Forged steel, black finish, natural finished hickory handle.

Nos.	Per dozen	Size	Cut, in.	head, lbs.	Wt. doz., lbs.
PTL1	\$14.00	1	2 1/4	7/8	17
PTL2	15.00	2	2 1/2	1 1/8	20

One-half dozen in a box.

HATCHETS PLUMB LATHING



Forged steel, rustless black finish, scored face, mahoganized hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Cut, in.	head, lbs.	Wt. doz., lbs.
2981	\$19.00	1	2 1/4	7/8	17
2982	20.00	2	2 1/2	1 1/8	20

One-half dozen in a box.

UNDERHILL LATHING



Chicago Pattern

Forged solid crucible tool steel full polished, hardened milled head will not break or batter down, scored face, special shape second growth hickory handle, securely wedged.

Per dozen

No. 40—2 1/8 in. cut, 13 in. handle, 15 oz. head, 9 rows, 81 points face; wt. per dozen 18 lbs....\$39.75

One-half dozen in a box.



St. Louis Pattern

Forged solid crucible tool steel, full polished, hardened milled head, will not break or batter down, scored face, special shape second growth hickory handle, securely wedged.

Per dozen

No. 50—2 1/8 in. cut, 13 in. handle, 15 oz. head, 10 rows, 81 points face; wt. per dozen 18 lbs....\$41.25

One-half dozen in a box.

HATCHETS PLUMB BOX



Forged steel, rustless black finish oval scored face, mahoganized hickory handle. Thin blade.

Nos.	Per dozen	Cut, in.	head, oz.	Wt. doz., lbs.
HF3010	\$30.50	2	12	15
HF3011	31.50	2 1/8	16	20

One-half dozen in a box.

PLUMB PRODUCE



Forged steel, rustless black finish, scored face, double nail slots, mahoganized hickory handle, patent take-up wedge.

Per dozen

No. 3005—12 oz. head, 2 1/8 in. cut; wt. per dozen 12 lbs.\$18.00

One-half dozen in a box.

G-T-W PRODUCE



Solid forged tool steel, blue finish, selected hickory handle.

Per dozen

No. 286—2 in. cut, 10 oz. head; wt. per dozen 10 lbs.\$20.00

One-half dozen in a box.

G-T-W BARREL



Solid forged tool steel, polished, scored face, double slots selected hickory handle.

Per dozen

No. 287—2 in. cut, 14 oz. head; wt. per dozen 14 lbs.\$20.00

One-half dozen in a box.

NAIL HAMMERS PLUMB



Adze Eye, Plain Face

Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
HF70	\$23.00	0	28	24
HF71	20.00	1	20	22
HF72	19.00	1½	16	20
HF73	18.00	2	13	17

One-half dozen in a box.



Adze Eye, Bell Poll

Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
HF80	\$20.00	11	20	22
HF81	19.00	11½	16	20
HF82	18.00	12	13	17
HF83	17.00	13	7	12½
HF84	16.50	14	4	9½

One-half dozen in a box.



Adze Eye, Octagon Neck and Poll

Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
No. HF111		Size 11½, wt. of head 16 oz.; wt. per dozen 20 lbs....		\$22.00

One-half dozen in a box.

PLUMB RIPPING



Adze Eye, Plain Face, Straight Claw

Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
HF75	\$20.00	1	20	22
HF76	19.00	1½	16	20

One-half dozen in a box.

NAIL HAMMERS PLUMB RIPPING



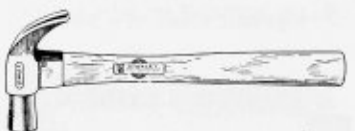
Adze Eye, Bell Poll, Straight Claw

Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
HF85	\$20.00	11	20	22
HF86	19.00	11½	16	20

One-half dozen in a box.

STANLEY

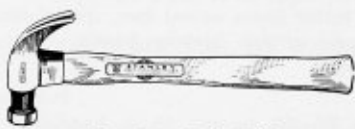


Adze Eye, Plain Face

Forged steel, polished, selected straight grain hickory handle, two wedges and two steps in eye assure tight heads.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
41	\$18.50	1	20	21
41½	16.00	1½	16	18
42	15.50	2	13	14

One-half dozen in a box.



Adze Eye, Bell Poll

Forged steel, polished, selected straight grain hickory handle, two wedges and two steps in eye assure tight heads.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
51	\$18.50	1	20	21
51½	16.00	1½	16	18
52	15.50	2	13	14
53	15.50	3	7	10

One-half dozen in a box.



Adze Eye, Octagon Neck and Poll

Forged steel, full polished, selected straight grain hickory handle, two wedges and two steps in eye assure tight heads.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
31F	\$20.00	1	20	21
31½F	19.00	1½	16	18
32F	18.50	2	13	14

One-half dozen in a box.

NAIL HAMMERS STANLEY



Adze Eye, Round Poll, Octagon Neck

Chrome-molybdenum alloy steel, super-heat treated, mirror polish, orange ribbed neck, black enameled under claws. White lacquered hickory handle with octagon neck.

Nos.	Per dozen
No. 100 Plus—Size 1½, wt. of head 16 oz.; wt. per dozen 24 lbs....	\$25.50

One in a box.



Adze Eye, Octagon Neck and Poll

Forged steel, nickel plated mahogany hickory handle, two wedges and two steps in eye assure tight heads.

Nos.	Per dozen
No. 31C—Size 1, wt. of head 20 oz.; wt. per dozen 21 lbs....	\$24.25

One-half dozen in a box.

G-T-W "MASTER BUILDER"



Adze Eye, Octagon Poll, Round Neck

Forged high grade steel, full polished, octagon hickory handle, securely wedged. Every tool is given individual treatment in tempering and is subject to special severe tests.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
746	\$26.00	1½	12	20
745	26.00	2	16	16½

One-half dozen in a box.

PHILADELPHIA TOOL CO.



Adze Eye, Bell Poll

Forged steel, black finish, white lacquered hickory handle.

Nos.	Per dozen
No. 145—Size 1½, wt. head 1 lb.; wt. per dozen 20 lbs....	\$10.00

One-half dozen in a box.

NAIL HAMMERS **ARROW**



Adze Eye, Bell Poll

Forged steel, polished, black enameled neck and under claws, hickory handle.

Per dozen

No. 111½—Size 1½, wt. of head 16 oz.; wt. per dozen 20 lbs.\$11.00

One-half dozen in a box.

STANDARD



Adze Eye, Bell Poll

Forged steel, polished head, black neck, selected hickory handle.

Per dozen

No. 101½—Size 1½, wt. of head 16 oz.; wt. per dozen 20 lbs.\$13.25

One-half dozen in a box.

HERCULES



Adze Eye, Bell Poll

Forged steel, black finish, hickory handle.

Per dozen

No. 211½—Size 1½, wt. of head 16 oz.; wt. per dozen 20 lbs.\$6.50

One-half dozen in a box.

STANLEY ASSORTMENT



An attractive display carton of strongly constructed jute board containing twelve 16 oz. hammers. One each of the four styles is displayed for comparison and sale.

Per assortment

No. H12 Assortment—12 hammers, three each No. 111½, 101½, and 211½ as described above and three No. 51½ Stanley regular nail hammers; wt. per assortment 18 lbs.\$11.50

NAIL HAMMERS **JIM DANDY**



Adze Eye, Bell Poll

Forged steel, black finish, polished poll, white lacquered hickory handle.

Per dozen

No. 11½—Size 1½, wt. of head 16 oz.; wt. per dozen 20 lbs.\$6.25

One-half dozen in a box.

ESTWING, CURVED CLAW



Bell Face, Tempered Sure-Grip Claws, Unbreakable

Head and handle forged from one piece of tool steel, polished; water-proof leather handle; 13 in. long.

Nos.	Per dozen	Wt. head, oz.	Wt. doz., lbs.
E116	\$24.00	16	21
E120	24.00	20	25

One-half dozen in a box.

ESTWING, STRAIGHT CLAW



Bell Face, Tempered Sure-Grip Claws, Unbreakable

Head and handle forged from one piece of tool steel, polished; water-proof leather handle; 13 in. long.

Per dozen

No. E216—16 oz. head; wt. per dozen 21 lbs.\$24.00

One-half dozen in a box.

WEATHER STRIP HAMMERS **G-T-W**



Used in the installation of metal weather stripping. Forged steel, fully polished. Hickory handle.

Per dozen

No. 72—6 oz. head; wt. per dozen 10 lbs.\$15.00

One-half dozen in a box.

MACHINISTS' HAMMERS **PLUMB**



Ball Pein

Forged steel, black rustless finish; mahogany hickory handle; patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. doz., lbs.
HF369	\$14.00	5/0	¼	5
HF370	14.00	4/0	¾	7½
HF371	14.00	3/0	½	15
HF372	14.00	2/0	¾	10
HF373	14.70	0	1	20
HF374	15.80	1	1½	24
HF375	17.00	2	1½	29
HF376	18.20	3	1¾	33½
HF377	19.40	4	2	38½
HF379	22.30	6	2½	48½

One-third dozen in a box.



Cross Pein

Forged steel, black rustless finish; mahogany hickory handle; patented take-up wedge.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. doz., lbs.
HF415	\$19.40	2	1½	29
HF417	22.40	4	2	38

One-third dozen in a box.



Straight Pein

Forged steel, black rustless finish, mahogany hickory handle, patented take-up wedge.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. doz., lbs.
HF395	\$19.40	2	1½	29
HF397	22.40	4	2	38

One-third dozen in a box.



MAYDOLE

Ball Pein

Solid crucible cast steel, polished, white hickory handle.

Nos.	Per dozen	Wt. head, lbs.	Wt. doz., lbs.
71	\$17.00	2	31½
72	16.00	1½	24
73	14.00	1¼	21
74	13.50	1	16½
75	13.00	¾	13½
76	13.00	¾	11½
77	13.00	½	9
78	13.00	¾	6¾
79	13.00	¼	4½
79½	13.00	¾	3

One-third dozen in a box.

MACHINISTS' HAMMERS

VAUGHAN & BUSHNELL



Ball Pein

Drop forged extra refined steel, hardened face and pein, tempered and tested, black finish, polished face and pein, hickory handle.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. dozen, lbs.
00B	\$12.00	00	3/4	14
0B	12.50	0	1	16
1B	14.00	1	1 1/4	21
2B	14.50	2	1 1/2	24
3B	16.00	3	1 3/4	28
4B	16.50	4	2	30
6B	20.00	6	2 1/2	36
8B	22.00	8	3	43 1/2

One-third dozen in a box.

RIVETING HAMMERS

PLUMB



Plain Eye

Forged steel, black rustless finish; mahogany hickory handle; patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. dozen, lbs.
HF250	\$13.50	0	4	5
HF251	14.25	1	7	9
HF252	14.75	2	9	11
HF253	15.50	3	12	15
HF254	16.00	4	15	19
HF255	17.25	5	18	21

One-half dozen in a box.

MAYDOLE LIGHT PATTERN



Plain Eye

Special formula steel, thoroughly tested, new and distinctive shape, gives perfect balance, hardened and tempered individually, sound, young straight grained hickory handle. The eye end of handle is treated to exclude all moisture. This prevents swelling and shrinking.

Nos.	Per dozen	Weight head, oz.	Weight dozen, lbs.
266	\$15.00	4	5
268	15.00	2	3

One-half dozen in a box.

RIVETING HAMMERS

STANLEY



Plain Eye

Forged steel, full polished, selected hickory handle.

Nos.	Per dozen	Size	Wt. head, oz.	Wt. dozen, lbs.
230	\$13.00	0	4	5
231	13.50	1	7	8
232	14.00	2	9	9
233	14.50	3	12	12
234	15.00	4	15	15 1/2
235	17.25	5	18	18 1/2

One-half dozen in a box.

HAND HAMMERS

PLUMB



Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. dozen, lbs.
HF280	\$18.25	0	1 1/2	23 1/2
HF281	19.50	1	2	30 1/2
HF282	21.00	2	2 1/2	35
HF283	22.50	3	3	42
HF284	23.75	4	3 1/2	51

One-third dozen in a box.

SCALING HAMMERS

PLUMB



Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Per dozen
No. 3095—Size 1, wt. of head 1 lb.;
wt. per dozen 15 lbs. \$12.00
One-half dozen in a box.

TINNERS' HAMMERS

PEXTO SETTING



Square Poll

Solid steel, polished; second growth hickory handle.

Nos.	Per dozen	Size face, in.	Weight head, oz.	Weight dozen, lbs.
1	\$16.00	1 1/8	20	21
2	15.00	1	16	18
4	14.00	3/4	10	9 1/2

One-half dozen in a box.

FARRIERS' HAMMERS

HELLER'S DRIVING



Octagon Pattern

Solid steel, polished, hickory handle.

Per dozen
No. 64—16 oz. handle; wt. per dozen 12 1/2 lbs. \$30.00
One-half dozen in a box.

BRICK HAMMERS

PLUMB



Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Per dozen
No. HF2580—Size 1, weight of head 1 1/2 lbs.; wt. per dozen 30 lbs. \$17.50
One-half dozen in a box.

VLCHEK



Adze Eye, with Handle

Drop forged tool steel, ebony finish, selected hickory handle, perfectly balanced, spalling face, hard center, four tough sharp edges.

Nos.	Per dozen	Weight head, lbs.	Weight dozen, lbs.
HL1	\$14.00	1 3/4	27
HL2	14.50	2	30
HL3	15.00	2 1/2	36

This pattern of bricklayers' hammer was originated by Vlček from suggestions received from practical bricklayers. Chisel end thin and sharp, ready for use. Proper wrist radius prevents straining the hand.

One-third dozen in a box.

**BRICK SKETZ
VLČEK**



Adze Eye, with Handle

Drop forged tool steel, ebony finish, selected hickory handle perfectly balanced, tough sharp cutting edges.

These Sketz have perfect adze eye. The handles will hold without wedges and are easily removed for redressing.

Nos.	Per dozen	Size	Wt. head, lbs.	Wt. doz., lbs.
HS1	\$17.00	1	1 3/4	27
HS2	18.00	2	2	30
HS3	20.00	3	2 1/4	36

One-third dozen in a box.

**PROSPECTING PICKS
PLUMB**



Forged steel, black rustless finish, mahogany hickory handle, patent take-up wedge.

Per dozen
No. HF470—Size 1, wt. of head 1 lb.; wt. per dozen 18 lbs.....\$22.00
One-half dozen in a box.

PAVERS' HAMMERS



Adze Eye

Hand forged tool steel, natural finish, with handle.

Per dozen
No. 214—Weight each 3 lbs.....\$72.00
Open stock.

**UPHOLSTERERS' HAMMERS
OSBORNE**



No. 61—French Pattern

Solid forged steel, polished, rosewood handle.

Sizes	Per dozen	Diam. face, in.	Length head, in.	Wt. each, oz.
4	\$42.00	1 1/2	6 3/4	15 1/2
5	42.00	5/8	7	16

One-half dozen in a box.

JOHNSON



Heavy Pattern

Solid forged steel, polished, hardwood handle.

Per dozen
No. 121—Assorted 1/2, 3/8 and 5/8 in. faces; wt. per dozen 8 lbs....\$10.00
One-half dozen in a box.

**TRIMMERS' HAMMERS
OSBORNE**



Magnetic

Solid forged steel, polished double face, hardwood handle.

Per dozen
No. 222—3/8 or 1/2 in. face, length of head 5 1/2 in.; wt. each 11 oz....\$28.00
One-half dozen in a box.

**BILL POSTERS' HAMMERS
ROBERTSON MAGNETIC**



With Card and Tack Holder

Nickel plated hammer head and handle trimmings, with springs for holding card to set first tack.

Nos.	Each	Length handle, in.	No. of sections	Wt. head, oz.
502	\$4.00	36	2	5
503	5.50	45	3	5

Two in a box.

**TACK HAMMERS
STANLEY**



Upholsterers' Magnetic

Forged steel, polished, super-heat treated, "Evertite" processed hardwood handle.

Per dozen
No. 602—7 oz. head, 5 1/2 in. long; wt. per dozen 6 lbs.....\$21.25
One-half dozen in a box.



Bill Posters' Magnetic

Forged steel, polished, "Evertite" processed hardwood handle.

Per dozen
No. 165—5 oz. head; wt. per dozen 7 lbs.\$14.00
One-half dozen in a box.



Magnetic

Cast iron nickeled head, plain eye, hardwood handle with claw end.

Per dozen
No. 2—4 in. head, 12 in. long over all; wt. per dozen 1 1/4 lbs.....\$2.00
One dozen in a box.

**GLAZIERS' HAMMERS
RIDGELY**



With Rotary Head

A hammer for glaziers and picture frame makers. With this tool glass can be set quicker and with more absolute security than by any other means.

Tool steel head, nickel plated, polished hardwood handle.

Each
No. 153—6 oz. head; wt. per dozen 8 lbs.\$1.50
Six in a box.

SHOE HAMMERS



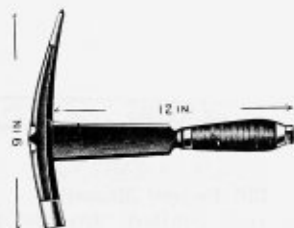
Cast Iron

Japanned finish with polished face. Oval hardwood handle.

Per dozen
No. 4—12 oz. head; weight per dozen 15 lbs.\$4.00

One-half dozen in a box.

SLATERS' HAMMERS



With Leather Handle

One-piece drop forged steel, with punch point, hammer end and center claw tempered to withstand heavy work.

Each
No. 12—9 in. head to point, 12 in. from head to end of handle; wt. each 2½ lbs.\$6.50
Open stock.

SLATERS' RIPPERS



Forged Crucible Cast Steel

The blade is drawn very thin and hook end correctly tempered for hard wear.

Each
No. 24—Blade 24½ in. long; wt. each 2½ lbs.\$4.00
Open stock.

SLATERS' STAKES



Forged from Fine Tool Steel, Hardened and Ground

Each
No. 18—18 in. long; weight each 2¼ lbs.\$2.50
Open stock.

CARPET STRETCHERS



Deep Socket

Forged steel, full polished finish.

Per dozen
No. 135—Wt. per dozen 7 lbs.\$6.00
One-half dozen in a box.

TACK CLAWS



Square Shank

Forged steel blade, polished rosewood finish handle, nickel plated steel ferrule.

Per dozen
No. 148—7 in. long, ½ in. square steel; wt. per dozen 2 lbs.\$2.25
One dozen in a box.



Flat Shank

Forged steel blade, polished, ebonized hardwood handle, nickel plated steel ferrule, riveted tang.

Per dozen
No. 151—6 in. long; wt. per dozen 1½ lbs.\$2.00
One dozen in a box.

NAIL CLAWS
SARGENT

Wrought steel, japanned, five fingers.

Per dozen
No. 0—12 in. long; wt. per dozen 15 lbs.\$12.00
Open stock.

BOX CHISELS
ROUND

Forged Steel, Black Finish, Polished Claw

Per dozen
No. 289—14 in. long; wt. per dozen 14¼ lbs.\$6.50
One-half dozen in a box.

GRATE OPENERS
HOOKER

With Side Hook

Forged steel, carefully tempered, heavily nickel plated. One face of hammer head scored. The side hook permits pulling extra long nails.

Per dozen
No. 42—9 in. long; wt. each 15 oz.; wt. per dozen 14 lbs.\$15.00
One-half dozen in a box.

BOX TERRIER



Standard Pattern

Forged steel, hardened head, tempered claw, nickel plated, one scored face.

Per dozen
No. 82—9 in. long; wt. each 14 oz.; wt. per dozen 14 lbs.\$12.00
One-half dozen in a box.

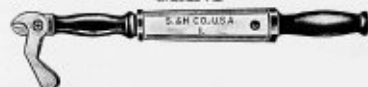
BABY TERRIER



Pocket Pattern

One piece forged steel, hardened head, tempered claw, one face scored, one smooth, polished and nickel plated finish.

Per dozen
No. 78—6½ in. long; wt. each 8 oz.; wt. per dozen 8 lbs.\$10.00
One-half dozen in a box.

NAIL PULLERS
GIANT

Forged steel jaws, aluminum finish rammer, polished jaws, black body.

Consists of rammer, handle, and long and short jaws. Box joint keeps jaws in perfect alignment.

Per dozen
No. 1—18 in. long over all, rammer 12 in. long; wt. per dozen 65 lbs.\$24.00
One dozen in a box.

NEW JUMBO



With Hand Guard

Forged steel jaws and shank, black enameled iron rammer, steel parts polished; claw fastened to shank with bolt and nut which permits tightening when loose from wear.

Per dozen
No. 57—18 in. long; weight per dozen 63 lbs.\$24.00
Three dozen in a case.

BOX SCRAPERS **STANLEY**



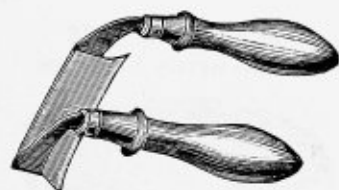
Hinged Handle

Tempered steel blade, japanned body, red hardwood handle.

No. 70—13 in. long, 2 in. blade; wt. per dozen 12 lbs.\$14.00

One-half dozen in a box.

DOUBLE HANDLE



Double Wood Handle

Beveled steel blade, riveted handles.

No. 271—Double handle; wt. dozen 8 3/4 lbs.\$10.00

One-half dozen in a box.

TRIANGULAR



Single Handle, Riveted

Adjustable forged steel blade, hardwood handle.

No. 272—Wt. per dozen 8 lbs.\$8.00

One-half dozen in a box.

CARTON OPENERS **FLASH**



Adjustable to cut just the right depth for any type of carton cover. Will not damage contents, prevents personal injury and makes it possible to save cartons for use again.

Made of zinc, tool steel blade.

No. 201—Wt. each 18 oz.; wt. per dozen 13 1/2 lbs.\$18.00

One in a box, one dozen in a carton.

BOX HOOKS **SARGENT**



Cast steel, bright finish, white hardwood handle.

No. 2—7 1/4 in. long over all; 5 1/4 in. handle, 3/8 in. diameter hook; wt. per dozen 6 1/2 lbs.\$4.50



Cast steel, bright finish, white hardwood handle.

No. 15—9 in. long over all, 5 1/4 in. handle, 3/8 in. diameter hook; wt. per dozen 7 lbs.\$6.60



Cast steel, bright finish, black hardwood handle.

No. 18—12 3/4 in. long over all, 7 in. handle, 7/8 in. diameter hook; wt. per dozen 10 lbs.\$10.00

MARKING POTS **STANDARD**



Pieced, IC tin, flaring seamed body.

No. 1—5 3/8 x 3 3/8 in.; wt. per dozen 5 1/2 lbs.\$3.50

COMBINATION BALL

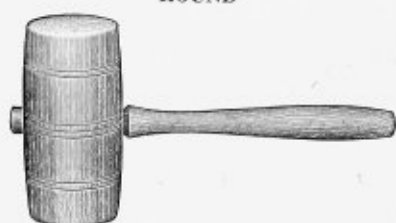


For either hand or stencil brush marking.

The ball in the pot gives an even distribution of the marking fluid, while the top of the pot affords a daubing surface to prime the brush, giving just the proper amount of ink for clean and legible marking.

No. 2—Combination\$10.00

MALLETS **ROUND**



Hickory

Nos.	Per dozen	Lgth., in.	Face, in.	Wt. doz., lbs.
1	\$ 8.00	5	3	13 3/4
2	10.00	5 1/2	3 1/2	16 3/4
3	11.50	6	4	26 1/2

Open stock.



Hickory, with Iron Rings

No. 14—6 in. long, 4 in. diameter; wt. per dozen 28 1/2 lbs.\$20.00

Open stock.

TINNERS



Hickory

Nos.	Per dozen	Length, in.	Diam., in.	Wt. doz., lbs.
4	\$5.00	5 to 5 1/2	2 1/4 to 2 1/2	12
4 1/2	9.00	6	3	18

Open stock.

EMPIRE RAWHIDE



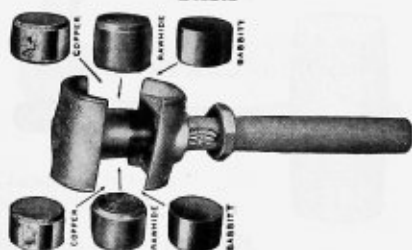
Selected rawhide heads, hardwood handles. Made by skilled mechanics and consequently superior to the ordinary rawhide mallets on the market.

Nos.	Per dozen	Diam. head, in.	Length head, in.	Wt. each, oz.
0M	\$ 7.92	1	2 3/8	2
1M	9.60	1 1/4	3	4
2M	11.16	1 1/2	3	5
3M	12.72	1 3/4	3 1/2	8
4M	16.08	2	3 3/4	11
5M	35.64	2 3/4	4 1/4	22
6M	40.32	3	4 3/4	24

Open stock.

RAWHIDE FACED HAMMERS

BASA



Strong tough metal head, adjustable and holds faces firmly; very fine grade straight-grained hickory handle; special well-seasoned rawhide faces, constructed to insure the proper degree of resilience and have a moisture proof finish.

Nos.	Per dozen	Diam. faces, in.	Wt. each, lbs.	Extra faces doz., pairs
1	\$18.96	1 1/4	1 1/4	\$6.00
2	24.12	1 1/2	1 3/4	7.20
3	28.80	1 3/4	2 1/4	9.12
4	41.76	2	4 1/4	15.84
5	52.80	2 3/4	6	22.84

Open stock.

COPPER HAMMERS



Without Handle

Copper, will not mar machined surfaces.

Nos.	Each	Wt. head, lbs.	Nos.	Each	Wt. head, lbs.
1	\$0.55	1/2	5	\$1.50	2 1/2
2	.65	1	6	1.80	3
3	.90	1 1/2	7	2.25	4
4	1.20	2			

Per dozen

Handles—Extra\$1.75

Open stock.

SOFT METAL HAMMER MOULDS

HORAT



For Moulding Soft Metal Hammers

The hammer handle is placed in position and the mold clamped. Lead or babbitt is melted in the ladle, which holds just enough for one hammer. The mold is then tilted, the metal runs into the mold and the hammer is ready when mold is removed. Handle is included with each mold.

Nos.	Each	For hammers wt. each, lbs.
2H	\$2.00	2
3H	2.25	3
4H	2.50	4
5H	2.75	5

Open stock.

STONE CUTTERS' MALLET



Very toughest, heavy, second growth Blue Ridge Mountain hickory. Cannot be excelled. Hardwood handle, varnished head.

Nos.	Each	Diam. each	Wt. each, lbs.
S3	\$2.00	5 1/2	3
S4	2.50	6	4
S5	3.00	6 1/4	5
S6	3.50	6 3/4	6
S7	4.00	7	7
S8	4.25	8	8

Open stock.

BUNG STARTERS



Riveted Style

Dovetailed maple head, hickory handle.

Per dozen

No. 1—6x3 1/4 x1 in. head, 24 in. handle; wt. per dozen 14 lbs.\$8.00

Open stock.

HOOP DRIVERS

NANTUCKET



Solid Crucible Steel

Selected second growth hickory handle.

Per dozen

No. 165—6 in. head, 1 1/4 in. edge; wt. each 2 1/4 lbs.\$29.00

Open stock.

COOPERS SHORT OVAL



Solid Crucible Steel

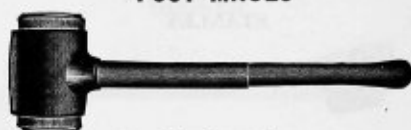
Varnished hickory handle, with ring.

Per dozen

No. 166—Assorted 2 1/2 and 2 3/4 in.\$50.00

Open stock.

POST MAULS



No. 90—Cast Iron

Japanned head, inserted hickory faces 32 in. hickory handle.

Size	Each	Wt. each, lbs.	Diam. head, in.
12MW	\$2.50	12	3 3/4
14MW	2.90	14	4
16MW	3.25	16	4 3/4

Open stock.

HEAVY HAMMERS
BLACKSMITHS SLEDGES

No. 322—Cross Pein

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.
6	\$1.46	6 1/2	2
8	1.66	7	2 1/4
10	1.86	7 1/2	2 1/2
12	2.28	8	2 5/8

Open stock.



No. 326—Straight Pein

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.
6	\$1.46	6 1/2	2
8	1.66	7	2 1/4
10	1.86	7 1/2	2 1/2
12	2.28	8	2 5/8

Open stock.



No. 325—Double Faces

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.
5	\$1.18	6	2
6	1.26	6 1/4	2
8	1.46	6 3/4	2 1/4
10	1.78	7 1/2	2 1/2
12	2.06	8	2 5/8
14	2.36	8 1/2	2 3/4
16	2.76	9	2 7/8

Open stock.

HEAVY HAMMERS BLACKSMITHS' HAND



No. 190—Western Pattern

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.
2	\$0.58	4½	1½
2½	.72	4¾	1¾
3	.88	4¾	1½
4	1.04	5¾	1¾

HAND DRILLING OR STONE CUTTERS



No. 203—New England Pattern

Solid cast steel, oil finish, polished faces.

Wt., lbs.	Each	Length, in.	Face, in.
2	\$1.06	4½	1½
2½	1.18	4¾	1¾
3	1.18	4¾	1¾
3½	1.24	4¾	1¾
4	1.34	4¾	1¾

STRIKING OR DRILLING



No. 229—Long Pattern

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.
6	\$1.26	6½	2
8	1.46	7½	2½
10	1.78	7¾	2½
12	2.06	8	2½
16	2.76	8¾	2¾

STONE SLEDGES



No. 337—Oval Face, Sharp Pein

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.	Bit, in.
8	\$1.46	7½	2½	2½
10	1.78	7½	2½	2½
12	2.06	7¾	2½	2½
16	2.76	8¾	2¾	2¾

All above, open stock.

HEAVY HAMMERS NAPPING HAMMERS



No. 212—Oval Faces

Solid cast steel, oil finish, polished faces.

Wt., lbs.	Each	Length, in.	Face, in.
3	\$0.98	6¼	1½
4	1.06	6½	1¾
6	1.46	6¾	1¾

MASONS' HAMMERS



No. 222—Single Face

Solid cast steel, oil finish.

Wt., lbs.	Each	Length, in.	Face, in.
3	\$0.88	5¾	2½x1
4	1.18	6	2½x1½
5	1.26	6¼	2½x1½
6	1.38	6½	2½x1¾
8	1.86	8	2½x1¾



No. 223—Double Face

Solid cast steel, oil finish.

Wt., lbs.	Each	Length, in.	Face, in.
8	\$1.86	8	2½x1½
10	2.36	8½	2½x1¾
12	2.86	9	2½x1¾
16	3.76	9¾	2½x1¾

BUSH HAMMERS



No. 197—Double Face

Solid cast steel, oil finish, regular cut, one end 25 teeth, other end 36 teeth.

Wt., lbs.	Each	Length, in.	Face, in.
4	\$4.40	6½	1¾
6	6.60	6¾	1¾
8	8.80	7¼	2½

SHIP OR TOP MAULS



No. 241—Standard Pattern

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.	Point, in.
4	\$1.58	8¼	1¾	¾
5	1.66	8¾	1¾	¾
6	1.98	9	2½	¾

All above, open stock.

RAILROAD TRACK MAULS



No. 238—Regular Pattern

Solid cast steel, oil finish, polished face.

Wt., lbs.	Each	Length, in.	Face, in.	Point, in.
6	\$1.26	9½	1½	1
8	1.46	10½	1½	1½
10	1.78	11¼	1¾	1¾

Open stock.

WRECKING BARS LEETONIA



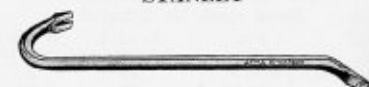
Gooseneck Pattern

Forged octagon steel, with claw and chisel ends.

Nos.	Per dozen	Length, in.	Diam., in.	Wt. doz., lbs.
112L	\$2.00	12	½	8
118L	3.00	18	¾	18
124L	4.00	24	¾	37
130L	5.00	30	¾	47
136L	6.00	36	¾	53

Open stock.

STANLEY



Heavy Duty, Goose Neck Pattern

Drop forged high grade hexagon tool steel, baked black japan body, bright red ends.

Nos.	Per dozen	Length, in.	Diam., in.	Wt. doz., lbs.
112S	\$6.00	12	½	12
118S	7.00	18	¾	21
124S	8.00	24	¾	42
130S	9.00	30	¾	51
2136	14.00	36	¾	84

Open stock.

CROW BARS



No. 75—Pinch Point

Solid steel, oil finish.

Wt., lbs.	Each	Length, feet	Square, in.
6	\$0.94	3	¾
8	1.08	3½	1
10	1.32	4	1
12	1.48	4½	1½
18	2.20	5	1¾
22	2.64	5½	1¾
30	3.96	6¾	1¾

Open stock.

RAILROAD PICKS



No. 296—Standard Pattern
Solid steel, black finish.

Wt., lbs.	Per dozen	Wt. case, lbs.
5	\$12.24	132
6	12.96	155
7	13.44	180
8	15.36	201

Two dozen in a case.

COAL PICKS



No. 267—Standard Pattern
Solid steel, black finish.

Wt., lbs.	Per dozen	Wt. case, lbs.
2	\$8.00	104
2½	8.40	130
3	8.80	156

Two dozen in a case.

STONE PICKS



No. 294—For Quarry Use
Solid steel, black finish.

Wt., lbs.	Per dozen	Length, in.	Width at eye, in.
7	\$19.92	11	2
8	20.88	13	2½

Open stock.

MATTOCKS



No. 424—Adze Eye
Solid steel, black finish.

Wt., lbs.	Per dozen	Width blade, in.	Length cutter, in.
3	\$13.68	3	4
4	13.68	3½	4½
5	13.92	3	5
6	14.88	4	5½

Two dozen in a case.

GRUB HOES



No. 440—Western Pattern
Solid steel, black finish.

Size	Per dozen	Width blade, in.	Wt. each, lbs.
1	\$13.68	3½	3½
2	14.64	4	4

Two dozen in a case.

CAR MOVERS



Malleable iron castings heat treated, spray enameled, second growth rock maple handle shellacked and varnished, hardened tool steel spurs. Rotating leverage, easy to handle.

Rowell—68 in. long over all; wt. 20 lbs. Each \$9.00

CANT HOOKS



Steel Duck Bill Hook

Malleable iron split rib socket, forged steel pick, painted rock maple handles.

No. 288—4½ ft. handle; wt. per dozen 96 lbs. \$33.20

PEAVIES



Steel Duck Bill Hook

Malleable iron split rib socket, forged steel pick, painted rock maple handles.

Nos.	Per dozen	Length handle, ft.	Diam. handle, in.	Wt. doz., lbs.
4	\$37.80	4	2½	114
5	39.00	4½	2½	118
6	40.00	5	2½	122

TIMBER CARRIERS



With Swivel Duck Bill Hooks

Forged steel hooks; maple handle. Will grapple material 3 to 16 in. Fitted with swivel to permit carrying timber through narrow passages.

No. 425—4 ft. x 2½ in. handle; wt. per dozen 106 lbs. \$36.90

All above, open stock.

CANT HOOK AND PEAVY HANDLES



Nos.	Per dozen	Length, ft.	Wt. doz., lbs.
703	\$ 8.60	4	46
704	9.50	4½	51
705	10.60	5	56
706	11.70	5½	61

TIMBER CARRIER HANDLES



Extra Select Rock Maple
Carefully turned, natural finish.

No. 770—4 ft. long, 2½ in. diameter; wt. per dozen 48 lbs. \$8.80

LOAD BINDERS



All Steel

For binding logs, lumber, pipe, hay, etc. Forged steel throughout.

Nos.	Doz.	For chain, in.	Take- up, in.	Lever, in.	Wt. ea., lbs.
651	\$30.00	¼ to ½	5½	22	8¼
652	42.00	½ to ¾	5	26	14

WOOD CHOPPERS' WEDGES



No. 400—Square Head

Solid steel, fluted, oil finish.

Wt., lbs.	3	4	5
Each	\$0.40	.48	.56

COAL WEDGES



No. 372—Standard Pattern

Solid steel, oil finish.

Wt., lbs.	2	2½	3
Each	\$0.30	.34	.40

STONE WEDGES



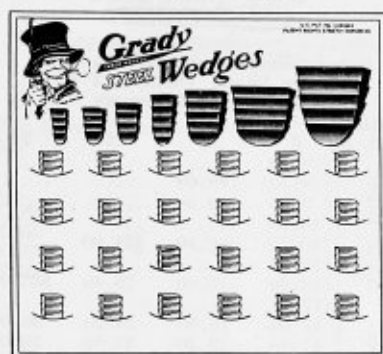
No. 402—Short Pattern

Solid cast steel, black oil finish.

Wt., lbs.	Each	Length, in.	Size, steel, in.
2	\$0.74	4¾	1½
3	.92	5½	1¾
4	1.10	6¼	1¾

All above, open stock.

HANDLE WEDGES



Non-Rusting Metal

Non-corrosive; tremendous holding qualities on account of hook corrugations.

Per card

No. 5— $\frac{1}{2}$ in. wide; 3 dozen on display card; wt. per card $\frac{3}{4}$ lb...\$1.80

No. 10— $\frac{3}{4}$ in. wide; 2 dozen on display card; wt. per card $\frac{3}{4}$ lb... 2.40

Combination—3 dozen No. 5 and 2 dozen No. 10 on a display card; wt. per card $1\frac{1}{2}$ lbs. 4.20

SAWYER

Illustrations Half Size



Per gross

No. A—2 in. long,

$1\frac{1}{2}$ in. wide; wt.

per gross $11\frac{1}{2}$ lbs.\$7.00

One dozen in a box.



For Axes and Large Hammers

Per gross

No. B— $1\frac{1}{2}$ in. long, 1 in.

wide; wt. per gross

$5\frac{3}{8}$ lbs.\$5.75

Three dozen in a box.



For Axes and Large Hammers

Per gross

No. C— $1\frac{1}{2}$ in. long, $1\frac{1}{8}$

in. wide; wt. per gross

$4\frac{1}{2}$ lbs.\$5.25

Three dozen in a box.



For Hammers and Hatchets

Per gross

No. D— $1\frac{1}{4}$ in. long, $\frac{3}{4}$ in.

wide; wt. per gross

$2\frac{3}{4}$ lbs.\$5.00

Three dozen in a box.

For Hatchets and Hammers

Per gross

No. E— $\frac{7}{8}$ in. long, $\frac{3}{4}$ in.

wide; wt. per gross

$2\frac{3}{8}$ lbs.\$4.50

Three dozen in a box.



For Light Hatchets and Hammers

Per gross

No. G— $\frac{7}{8}$ in. long, $\frac{1}{2}$ in.

wide; wt. per gross

$1\frac{3}{4}$ lbs.\$3.75

Three dozen in a box.

ANVIL TOOLS SQUARE FLATERS



No. 13—Square Face

Solid steel, oil finish.

Face, in.	Each	Weight each, lbs.
2	\$1.56	2
$2\frac{1}{2}$	2.08	$3\frac{1}{4}$
3	2.60	$4\frac{1}{2}$
$3\frac{1}{2}$	3.60	6

Used for smoothing and finishing flat forgings.

Open stock.

SET HAMMERS



No. 27—Square Face

Solid steel, oil finish.

Face, in.	Each	Weight each, lbs.
$1\frac{1}{4}$	\$1.34	2
$1\frac{1}{2}$	1.69	$3\frac{1}{4}$
$1\frac{3}{4}$	2.10	$4\frac{1}{2}$
2	2.64	$5\frac{1}{2}$

Used for setting down the metal in a forging to from a square corner.

Open stock.

HARDIES



No. 18—Regular Pattern

Solid steel, oil finish.

This tool sets in the anvil and is used for cutting off forgings.

Size shank, in.	Each	Width bit, in.	Weight each, lbs.
$\frac{1}{2}$	\$0.60	$1\frac{1}{8}$	$\frac{5}{8}$
$\frac{3}{8}$	.70	$1\frac{1}{8}$	1
$\frac{1}{4}$	.78	$1\frac{1}{8}$	$1\frac{1}{4}$
$\frac{3}{16}$	.94	2	$1\frac{3}{4}$
1	1.04	$2\frac{1}{4}$	2
$1\frac{1}{8}$	1.34	$2\frac{1}{4}$	$2\frac{1}{2}$
$1\frac{1}{4}$	1.42	$2\frac{1}{2}$	$2\frac{3}{4}$

Open stock.

BLACKSMITHS' PUNCHES



No. 23—Round Pattern

Solid steel, oil finish.

Size point, in.	Each	Stock at eye, in.	Length, in.	Weight each, lbs.
$\frac{1}{2}$	\$1.10	$1\frac{1}{4}$	$7\frac{3}{4}$	2
$\frac{3}{8}$	1.36	$1\frac{1}{4}$	$7\frac{3}{4}$	$2\frac{1}{8}$
$\frac{1}{4}$	1.40	$1\frac{1}{8}$	$7\frac{3}{4}$	$2\frac{1}{2}$

Open stock.

BLACKSMITHS' COLD CUTTERS



No. 5—Tool Steel

Size	Each	Cut, in.	Length, in.	Weight each, lbs.
$1\frac{1}{8}$	\$0.98	$1\frac{1}{8}$	$5\frac{1}{2}$	$1\frac{1}{2}$
$1\frac{1}{4}$	1.14	$1\frac{1}{4}$	6	2
$1\frac{1}{2}$	1.32	$1\frac{1}{2}$	$6\frac{1}{2}$	$2\frac{1}{2}$
$1\frac{3}{4}$	1.56	$1\frac{3}{4}$	$6\frac{3}{4}$	3
$1\frac{7}{8}$	2.04	$1\frac{7}{8}$	7	4
$1\frac{3}{4}$	2.50	$1\frac{3}{4}$	$7\frac{1}{2}$	5
2	3.14	2	8	6

Open stock.

BLACKSMITHS' RIVET SETS



No. 106—Button Head

Solid steel, oil finish.

Rivet size	Each	Diam. cup, in.	Length, in.	Weight each, lbs.
$\frac{3}{8}$	\$1.98	$\frac{3}{8}$	$6\frac{1}{4}$	$3\frac{1}{2}$
$\frac{1}{2}$	1.98	$\frac{7}{8}$	$6\frac{1}{4}$	$3\frac{1}{2}$
$\frac{5}{8}$	2.36	$1\frac{1}{8}$	7	$5\frac{1}{2}$
$\frac{3}{4}$	2.36	$1\frac{1}{4}$	7	$5\frac{1}{2}$
$\frac{7}{8}$	2.92	$1\frac{1}{2}$	7	7

Open stock.

BLACKSMITHS' ANVILS EAGLE



One-piece tool steel face, perfectly welded to body, accurately ground and tempered. Special analysis gun iron body. The horn is a solid piece of tough untempered steel.

Nos.	Each	Wt., lbs.	Length face, in.	Width face, in.
10	\$6.50	10	6	2
20	8.80	20	$7\frac{1}{2}$	$2\frac{1}{4}$
30	12.00	30	$8\frac{3}{4}$	$2\frac{1}{2}$
40	13.75	40	$9\frac{1}{4}$	3
50	16.00	50	10	3
60	18.00	60	$10\frac{1}{2}$	3
70	20.25	70	11	$3\frac{1}{4}$
80	22.50	80	$11\frac{1}{2}$	$3\frac{1}{4}$
90	25.00	90	$11\frac{1}{2}$	$3\frac{1}{4}$

ARM & HAMMER BRAND



Wrought Iron Body, Tool Steel Face

Unequaled for superior shape, graceful design, stability on the block and absence of superfluous weight in base.

Nos.	Per pound	Wt., lbs.	Length face, in.	Width face, in.
80AH	\$0.30	80	$12\frac{1}{2}$	$3\frac{1}{2}$
100AH	.30	100	14	$3\frac{3}{4}$
125AH	.30	125	15	$3\frac{3}{4}$
150AH	.30	150	$16\frac{1}{2}$	4
175AH	.30	175	$17\frac{1}{2}$	$4\frac{1}{4}$
200AH	.30	200	18	$4\frac{1}{2}$
250AH	.30	250	20	5
300AH	.30	300	22	$5\frac{1}{2}$

FORGES CHAMPION



No. 145

Eureka geared agricultural forge equipped with a cut-gear crank-driven blower.

Cast iron hearth, cast iron gear case, rigid, oil-tight and dust-proof, giving modern advantages.

With Shield Each

No. 145—18 in. round hearth, height 30 in., diameter of fan 8 in.; wt. each 70 lbs. \$14.00

With Half Hood Each

No. 146—18 in. round hearth, height 30 in., diameter of fan 8 in.; wt. each 75 lbs. \$16.00

One in a crate.

Improved Eureka Geared

Equipped with a cut-gear, crank-driven blower; helical gearing being used to give smooth running and noiseless operation. Iron gear case, rigid, oil-tight and dust-proof.



No. 147

With Shield Each

No. 147—22 in. round hearth, height 30 in., diameter of fan 8 in.; wt. each 85 lbs. \$18.00

With Half Hood Each

No. 148—22 in. round hearth, height 30 in., diameter of fan 8 in.; wt. each 90 lbs. \$20.00

One in a crate.

CHAMPION MIDWAY



No. 73

Cast iron hearth, spiral geared, direct drive, well built, large, strong and substantial. For machinists', boiler makers', bridge builders', railroad contractors' and miners' use.

With Half Hood Each

No. 73—23x35 in. diameter hearth, 10 in. fan, 30 in. high; weight 235 lbs. \$40.00

With Shield Each

No. 72—23x35 in. diameter hearth, 10 in. fan, 30 in. high; weight 225 lbs. \$37.00

One in a crate.

BRICK CHISELS KRAEUTER



No. 502—Single Bevel

Drop forged steel, natural black finish, with polished edges.

Width, in.	Per dozen	Length, in.	Wt. each, lbs.
3	\$10.80	6 3/4	1 1/4
3 1/2	10.80	6 3/4	1 3/8
4	13.20	7	1 3/4

One-half dozen in a box.

RAWLDRILLS



Standard Type for Hand Drilling

High grade tool steel, accurately forged and heat treated. Can be resharpened on grinding wheel.

Standard Type (Symbol S/T)

For Hand Drilling

Lgth. over all, in.	9	10	12	18	24
3/8	\$12.00				
1/2		\$12.00		\$18.00	\$25.20
5/8		12.00		18.00	25.20
3/4			\$12.00		
7/8			12.00	21.00	28.80
1			13.80		
1 1/8			13.80	22.80	30.00
1 1/4			15.60		
1 1/2			15.60	24.00	32.40
1 3/4			16.80	25.80	33.60
1 7/8			19.80	26.40	36.00
2					
2 1/8					
2 1/4					
2 1/2					
2 3/4					
3					

*Made in triangle drills.



Machine Type; for Hand Drilling

High grade tool steel; accurately forged and heat treated.

Size	Per dozen	Diam., in.	Size	Per dozen	Diam., in.
6	\$6.00	3/8	14	\$6.60	3/8
8	6.00	7/16	16	7.20	7/16
10	6.00	1/2	20	8.40	1/2
12	6.00	5/8	7/16	10.80	5/8

RAWLDRILL HOLDERS



For Machine Type Rawl Drills

Nos.	14	20
For drills, Nos. 6, 8, 10, 12, 14	16, 18, 7/16	
Wt. dozen, lbs.	6 1/4	8
Per dozen	\$9.00	12.00

Open stock.

RAWLDRILLS



For Power Drilling Taper Shank (Symbol T/S) For Power Hammers

Lgth. over all, in.	6	12	18	24
No. 20 Taper	\$ 8.40			
	8.40	\$9.60		
	9.00	10.20		
	10.20			
	10.20	13.80	\$24.00	
	13.80			
	13.80	15.60	26.40	\$33.00
	17.40			
	17.40	18.60	28.20	36.00
	17.40	19.20	33.00	39.00
	24.00	27.00	36.00	42.00
		33.00	48.00	54.00
		42.00		
		45.00	54.00	60.00
		48.00	60.00	

†For pneumatic chipping hammers made with special 5/8 taper.

Prices on application.

BRICK AND STONE DRILLS DIAMOND FOUR POINT STAR

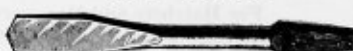


High grade octagon steel, heat treated and specially tempered.

8 in. Long			12 in. Long		
Diam., in.	Per dozen	Wt. doz., lbs.	Diam., in.	Per dozen	Wt. doz., lbs.
1/4	\$8.25	1 1/2	1/4	\$8.50	2
3/8	8.25	1 1/2	3/8	8.50	3
1/2	8.25	2 1/4	1/2	8.50	4
5/8	8.70	2 1/4	5/8	9.00	5
3/4	9.65	3 1/4	3/4	10.00	5
7/8	11.65	4	7/8	12.00	9
1	13.70	5 1/2	1	14.00	12
	15.30	8 3/4	1 1/8	16.00	15
	17.00	13	1 1/4	18.00	21
			1 1/2	24.00	27
			1 3/4	30.00	30

18 in. Long			24 in. Long		
Diam., in.	Per dozen.	Wt. doz., lbs.	Diam., in.	Per dozen	Wt. doz., lbs.
$\frac{1}{4}$	\$11.00	3	$\frac{3}{8}$	\$13.50	8
$\frac{3}{8}$	11.00	4 $\frac{1}{2}$	$\frac{1}{2}$	14.00	10
$\frac{1}{2}$	11.00	6	$\frac{5}{8}$	15.00	10
$\frac{3}{4}$	11.50	7 $\frac{1}{2}$	$\frac{3}{4}$	17.50	18
$\frac{7}{8}$	12.50	7 $\frac{1}{2}$	$\frac{7}{8}$	20.00	24
1	15.00	13 $\frac{1}{2}$	1	22.50	30
$1\frac{1}{8}$	17.50	18	$1\frac{1}{8}$	25.00	42
$1\frac{1}{4}$	20.00	22 $\frac{1}{2}$	$1\frac{1}{4}$	32.00	54
$1\frac{1}{2}$	22.50	31 $\frac{1}{2}$	$1\frac{1}{2}$	40.00	54
$1\frac{3}{4}$	28.00	41	$1\frac{3}{4}$	62.00	84
2	35.00	63	2	120.00	106

TILE DRILLS



No. 10—For Brace

Tool steel, natural finish, hand forged.			
Size bit, in.	Per dozen	Length, in.	Wt. doz., lbs.
1/4	\$2.10	5	1 1/8
3/8	2.10	5	1 1/4
1/2	2.10	5	1 1/2
5/8	2.40	5	1 3/4
3/4	2.40	5	2
7/8	2.70	5	2 1/4
1	2.70	5	

BULL POINT BARS



High grade octagon steel, oil finish.
For breaking concrete side walks, walls,
etc.

Nos.	Per pound	Diam., in.	Length, in.	Wt. ea., lbs.
378A	\$0.29	$\frac{3}{4}$	18	2 $\frac{1}{4}$
378B	.29	1	18	3 $\frac{3}{8}$
378C	.20	1 $\frac{1}{4}$	24	8 $\frac{1}{4}$
378D	.20	1 $\frac{1}{4}$	30	10 $\frac{1}{4}$

Open stock.

STONE CUTTERS' TOOLS HAMMER HEAD POINTS



No. 132—Extra Quality Steel

Natural finish, 9 in. long.

Diameter stock, in.	Each	Wt. doz., lbs.
$\frac{5}{8}$	\$0.42	6
$\frac{3}{4}$	.58	12

Open stock.

MALLET HEAD POINTS



No. 136—Extra Quality Steel

Natural finish, 9 in. long.

Diameter stock, in.	Each	Wt. doz., lbs.
$\frac{5}{8}$	\$0.62	6
$\frac{3}{4}$	.80	12

Open stock.

HAMMER HEAD PITCHING TOOLS



No. 133—Extra Quality Steel

Natural finish, 8 in. long.

Width blade, in.	Each	Wt. doz., lbs.
2	\$0.98	10
2 $\frac{1}{2}$	1.14	15

Open stock.

PLAIN HEAD CHISELS



No. 130—Extra Quality Steel

Natural finish, 8 $\frac{1}{2}$ in. long.

Width blade, in.	Each	Wt. doz., lbs.
1	\$0.46	6
1 $\frac{1}{4}$	.50	6
1 $\frac{1}{2}$	.52	6

Open stock.

STONE CUTTERS' TOOLS MALLET HEAD CHISELS



No. 134—Extra Quality Steel

Natural finish, 8 $\frac{1}{2}$ in. long.

Width blade, in.	Each	Wt. doz., lbs.
1	\$0.66	6
1 $\frac{1}{4}$	.70	6
1 $\frac{1}{2}$	.74	6

Open stock.

TOOTH CHISELS



No. 135—Extra Quality Steel

Natural finish, 8 $\frac{1}{2}$ in. long.

Width blade, in.	Each	Wt. doz., lbs.
1	\$0.72	6
1 $\frac{1}{4}$	.76	6
1 $\frac{1}{2}$	.80	6

Open stock.

COLD CHISELS IRON CITY



No. 117—Extra Quality

High grade tool steel, green enameled
finish, polished head and bit.

Size, in.	Per dozen	Cut, in.	Stock, in.	Lth., in.	Wt. doz., lbs.
$\frac{3}{8}$	\$ 1.92	$\frac{1}{8}$	$\frac{3}{8}$	5 $\frac{1}{2}$	2
$\frac{1}{2}$	2.40	$\frac{1}{8}$	$\frac{1}{2}$	6	4
$\frac{5}{8}$	3.36	$\frac{3}{8}$	$\frac{5}{8}$	6 $\frac{1}{2}$	7
$\frac{3}{4}$	7.20	$\frac{7}{8}$	$\frac{3}{4}$	7 $\frac{1}{2}$	11 $\frac{1}{2}$
$\frac{7}{8}$	11.16	1	$\frac{7}{8}$	8	16
1	15.12	1 $\frac{1}{8}$	1	8 $\frac{1}{2}$	22

Open stock.

KRAEUTER DREADNOUGHT



No. 330—Die Makers

Forged "Chrome-molly" steel, correctly
tempered, individually tested, polished
head and blade.

Size, in.	Per dozen	Cut, in.	Stock, in.	Lth., in.	Wt. doz., lbs.
$\frac{1}{8}$	\$ 3.36	$\frac{1}{8}$	$\frac{1}{8}$	5	1 $\frac{1}{2}$
$\frac{1}{4}$	3.36	$\frac{1}{4}$	$\frac{1}{4}$	5	$\frac{3}{4}$
$\frac{3}{8}$	3.36	$\frac{3}{8}$	$\frac{3}{8}$	5	1 $\frac{1}{4}$
$\frac{1}{2}$	3.96	$\frac{1}{2}$	$\frac{1}{2}$	5	1 $\frac{3}{4}$
$\frac{5}{8}$	4.56	$\frac{5}{8}$	$\frac{5}{8}$	6	2 $\frac{3}{4}$
$\frac{3}{4}$	6.00	$\frac{3}{4}$	$\frac{3}{4}$	6 $\frac{1}{2}$	4
$\frac{7}{8}$	6.60	$\frac{7}{8}$	$\frac{7}{8}$	7	6 $\frac{3}{4}$
1	8.40	1	1	8	11 $\frac{1}{2}$
1	11.40	1	$\frac{7}{8}$	8 $\frac{1}{2}$	15

$\frac{1}{8}$ to $\frac{3}{8}$ in. one dozen, balance one-half
dozen in a box.

COLD CHISELS STANLEY-ATHA



No. 99—Chromium Plated

Drop forged electric furnace chrome
vanadium steel, oil hardened and tem-
pered, flat pattern insures a firm hand
hold, head and bit polished.

Size, in.	Per dozen	Cut, in.	Stock, in.	Lth., in.	Wt. doz., lbs.
$\frac{3}{8}$	\$ 5.40	$\frac{1}{8}$	$\frac{3}{8}$	5 $\frac{1}{2}$	1 $\frac{3}{4}$
$\frac{1}{2}$	6.00	$\frac{1}{8}$	$\frac{1}{2}$	6 $\frac{1}{4}$	3 $\frac{1}{4}$
$\frac{5}{8}$	7.80	$\frac{3}{8}$	$\frac{5}{8}$	7	5 $\frac{1}{4}$
$\frac{3}{4}$	9.60	$\frac{7}{8}$	$\frac{3}{4}$	7 $\frac{1}{2}$	7 $\frac{3}{4}$
$\frac{7}{8}$	12.00	1	$\frac{7}{8}$	8	12 $\frac{1}{2}$
1	15.00	1 $\frac{1}{4}$	1	8 $\frac{1}{4}$	16

$\frac{3}{8}$ and $\frac{1}{2}$ in., one dozen; balance one-half
dozen in a box.

EXTRA LONG



Forged steel, natural finish, tempered,
polished bit.

Nos.	Per dozen	Width, in.	Length, in.	Wt. doz., lbs.
20	\$ 6.48	$\frac{5}{8}$	12	13
30	7.56	$\frac{3}{4}$	12	18
40	9.72	$\frac{3}{4}$	18	30
50	17.16	$\frac{3}{4}$	24	38
60	19.80	1	24	66

Open stock.

DIAMOND POINT CHISELS KRAEUTER



No. 632—Regular Pattern

Drop forged steel, perfectly tempered,
black finish, polished head and blade.

Size, in.	Per dozen	Cut, in.	Stock, in.	Lth., in.	Wt. doz., lbs.
$\frac{1}{8}$	\$2.40	$\frac{1}{8}$	$\frac{1}{8}$	5	$\frac{3}{4}$
$\frac{1}{4}$	2.52	$\frac{1}{8}$	$\frac{1}{4}$	5	1 $\frac{1}{4}$
$\frac{3}{8}$	2.76	$\frac{1}{4}$	$\frac{3}{8}$	5	1 $\frac{3}{4}$
$\frac{1}{2}$	3.96	$\frac{1}{2}$	$\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{3}{4}$
$\frac{5}{8}$	4.78	$\frac{5}{8}$	$\frac{5}{8}$	6 $\frac{1}{4}$	6 $\frac{1}{4}$
$\frac{3}{4}$	5.52	$\frac{3}{4}$	$\frac{3}{4}$	7	9 $\frac{1}{2}$
$\frac{7}{8}$	7.56	$\frac{7}{8}$	$\frac{7}{8}$	8	14

$\frac{1}{8}$ to $\frac{1}{4}$ in., one dozen; balance one-half
dozen in a box.

ROUND NOSE CHISELS KRAEUTER



No. 631—Regular Pattern

Drop forged steel, perfectly tempered,
black finish, polished head and blade.

Size, in.	Per dozen	Cut, in.	Stock, in.	Lth., in.	Wt. doz., lbs.
$\frac{1}{8}$	\$1.68	$\frac{1}{8}$	$\frac{1}{8}$	5	$\frac{3}{4}$
$\frac{1}{4}$	1.92	$\frac{1}{8}$	$\frac{1}{4}$	5	1 $\frac{1}{4}$
$\frac{3}{8}$	2.16	$\frac{1}{4}$	$\frac{3}{8}$	5	1 $\frac{3}{4}$
$\frac{1}{2}$	3.00	$\frac{1}{2}$	$\frac{1}{2}$	5 $\frac{3}{4}$	3 $\frac{3}{4}$
$\frac{5}{8}$	3.60	$\frac{5}{8}$	$\frac{5}{8}$	6 $\frac{1}{4}$	6 $\frac{1}{4}$
$\frac{3}{4}$	4.56	$\frac{3}{4}$	$\frac{3}{4}$	7	9 $\frac{1}{2}$
$\frac{7}{8}$	5.52	$\frac{7}{8}$	$\frac{7}{8}$	8	14

$\frac{1}{8}$ to $\frac{1}{4}$ in., one dozen; balance one-half
dozen in a box.

CAPE CHISELS KRAEUTER



No. 635—Regular Pattern

Drop forged steel, perfectly tempered, black finish. Polished head and blade.

Size, in.	Per dozen	Cut, in.	Stock, in.	Length, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$2.16	$\frac{1}{8}$	$\frac{1}{4}$	$5\frac{1}{2}$	$\frac{3}{4}$
$\frac{1}{4}$	2.40	$\frac{1}{4}$	$\frac{1}{2}$	$5\frac{1}{2}$	$1\frac{1}{4}$
$\frac{3}{8}$	2.64	$\frac{3}{8}$	$\frac{3}{4}$	$5\frac{1}{2}$	2
$\frac{1}{2}$	3.84	$\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{2}$	$3\frac{3}{4}$
$\frac{3}{4}$	3.96	$\frac{3}{4}$	$1\frac{1}{2}$	$6\frac{1}{2}$	$3\frac{3}{4}$
$1\frac{1}{2}$	5.04	$1\frac{1}{2}$	$2\frac{1}{2}$	7	$6\frac{1}{4}$
$2\frac{1}{2}$	6.00	$2\frac{1}{2}$	$3\frac{1}{4}$	$7\frac{1}{2}$	$9\frac{1}{2}$
$3\frac{1}{4}$	7.20	$3\frac{1}{4}$	$4\frac{1}{4}$	8	14

$\frac{1}{8}$ to $\frac{1}{4}$ in., one dozen, balance one-half dozen in a box.



No. 645—Round Nose Pattern

Drop forged steel, perfectly tempered, black finish, polished head and blade.

Size, in.	Per dozen	Cut, in.	Stock, in.	Length, in.	Wt. doz., lbs.
$\frac{1}{8}$	\$3.12	$\frac{1}{8}$	$\frac{3}{8}$	$5\frac{1}{2}$	2
$\frac{1}{4}$	4.20	$\frac{1}{4}$	$\frac{1}{2}$	6	$3\frac{3}{4}$
$\frac{3}{8}$	4.80	$\frac{3}{8}$	$\frac{5}{8}$	$6\frac{1}{2}$	$6\frac{1}{4}$
$\frac{1}{2}$	6.00	$\frac{1}{2}$	$\frac{3}{4}$	7	$9\frac{1}{2}$

$\frac{1}{8}$ in., one dozen; balance, one-half dozen in a box.

PLUGGING CHISELS HARGRAVE



No. 963—10 Inches Long

Forged special analysis alloy steel, hammer tested.

Size, in.	$\frac{1}{8}$	$\frac{1}{4}$
Cut, in.	$\frac{1}{8}$	$\frac{1}{4}$
Stock, in.	$\frac{1}{2}$	$\frac{5}{8}$
Wt. doz., lbs.	$6\frac{1}{4}$	$9\frac{3}{4}$
Per dozen	\$3.84	7.80

One-half dozen in a box.

ELECTRICIANS' CHISELS STANLEY



Drop forged from high grade electric furnace chrome vanadium alloy steel. Polished blade, black finish handle. Designed to cut off the tongue of flooring boards. Bit is tempered to cut nails.

No. 210— $2\frac{3}{4}$ in. cutting edge, $\frac{1}{2}$ in. stock, 8 in. long; wt. each $\frac{7}{8}$ lb. \$15.00

In addition to their use by electricians, these chisels are adapted for work of carpenters, plumbers and other mechanics.

One-third dozen in a box.

FLOOR CHISELS AMERICAN



High grade tool steel, properly hardened and tempered, natural finish.

This chisel has an extremely thin blade, which cuts tongue without marring floor board.

No. 75—2 in. cutting edge, 7 in. long; wt. per dozen 7 lbs. \$8.00

One-half dozen in a box.



Drop forged steel, octagon stock, natural finish. Used by plumbers, carpenters, and other mechanics.

No. 65—3 in. wide, 10 in. long, $\frac{3}{4}$ in. stock; wt. per dozen 16 lbs. \$14.00

One-half dozen in a box.



Drop forged steel, natural finish, polished blade, octagon stock. For cutting, not for prying. Used by carpenters, plumbers, electricians and other mechanics.

No. 60—3 in. wide, 10 in. long, $\frac{3}{4}$ in. octagon stock; wt. per dozen 22 lbs. \$12.00

One-half dozen in a box.

PLUMBERS' CHISELS KRAEUTER



No. 403—Highest Grade Crucible Steel Perfect temper, highly polished face, bevels and bit, black grip.

Made with beveled edges and bit, making it easier to operate in heavy wood. The handle is slightly raised to clear the hand when using.

Size, in.	Per dozen	Cut, in.	Stock, in.	Length, in.	Wt. doz., lbs.
$\frac{5}{8}$	\$6.00	$\frac{5}{8}$	$\frac{1}{2}$	11	6
$\frac{3}{4}$	7.80	$\frac{3}{4}$	$\frac{1}{2}$	11	7
1	9.00	1	$\frac{5}{8}$	11	$10\frac{1}{2}$
$1\frac{1}{4}$	10.20	$1\frac{1}{4}$	$\frac{5}{8}$	11	$11\frac{1}{2}$
$1\frac{1}{2}$	12.00	$1\frac{1}{2}$	$\frac{3}{4}$	11	15
2	21.00	2	$\frac{7}{8}$	12	23

One-half dozen in a box.

PLUMBERS' CALKING CHISELS STUB



For calking soil pipes and water mains. High grade octagon steel, hardened and tempered.

No. 306— $\frac{3}{4}$ x $\frac{1}{8}$ in. blade, $\frac{5}{8}$ in. stock, $6\frac{1}{2}$ in. long; wt. per dozen 9 lbs. \$4.00

One dozen in a package.

REGULAR



For calking soil pipe, water mains, etc. High grade octagon steel, hardened and tempered.

No. 307— $\frac{3}{4}$ in. face, 7 in. long, $\frac{3}{4}$ in. stock; wt. per dozen $9\frac{1}{2}$ lbs. \$4.00

One dozen in a package.

SHORT



For calking close to one edge of hub. High grade octagon steel, hardened and tempered.

No. 311— $1\frac{1}{2}$ x $\frac{1}{8}$ in. face, $\frac{3}{4}$ in. stock, $7\frac{1}{2}$ in. long; wt. per dozen $9\frac{1}{2}$ lbs. \$4.50

One dozen in a package.

RIGHT AND LEFT OFFSET



For calking in inaccessible places. High grade octagon steel, hardened and tempered.

No. 312R—Right hand, $\frac{3}{4}$ in. stock, 8 in. long; wt. per dozen 10 lbs. \$4.00
No. 312L—Left hand, $\frac{3}{4}$ in. stock, 8 in. long; wt. per dozen 10 lbs. 4.00

One dozen in a package.

Our large and complete stock enables us to render prompt and efficient service on all items shown in this catalog.

Only lines of national reputation are included.

PLUMBERS' YARNING CHISELS

REGULAR



For calking oakum into joints.
High grade octagon steel, hardened and tempered.

Per dozen
No. 308— $\frac{3}{4}$ x $\frac{1}{8}$ in. point, 5 in. blade,
10 $\frac{1}{2}$ in. long over all; wt. per
dozen 10 $\frac{1}{2}$ lbs.\$4.00
One dozen in a package.

EXTRA LONG



For working oakum into joints by hand.
High grade octagon steel, hardened and tempered.

Per dozen
No. 309— $\frac{3}{4}$ x $\frac{1}{8}$ in. point, 10 in.
blade, 15 $\frac{1}{2}$ in. long, over all. $\frac{3}{4}$
in. stock; wt. per dozen 8 $\frac{1}{2}$ lbs.\$5.00
One dozen in a package.

PLUMBERS' GASKET CHISELS

LONG



With curved face.
High grade octagon steel, hardened and tempered.

Per dozen
No. 310— $\frac{3}{4}$ x $\frac{1}{8}$ in. face, $\frac{3}{4}$ in. stock,
9 $\frac{3}{4}$ in. long; wt. per dozen 10
lbs.\$5.00
One dozen in a package.

PLUMBERS' CHIPPING KNIVES



Crucible steel blade, riveted leather handle.

Per dozen
No. 337—5 in. blade; wt. per dozen
6 $\frac{1}{4}$ lbs.\$12.00
One dozen in a box.

PLUMBERS' TAP BORERS



Regular Pattern

Tapered, half oval heavy tool steel blade, beveled cutting edges, bent shank passes through the handle headed with washer. Hardwood handle.

Per dozen
No. 342—5 $\frac{1}{2}$ in. over all, 2 $\frac{1}{2}$ in.
long, cuts up to 1 $\frac{1}{2}$ in.; wt. per
dozen 3 lbs.\$4.00
One dozen in a box.

PLUMBERS' TURN PINS



No. 301—Dogwood

For expanding ends of lead pipe and traps.

Size, in.	1	2	3
Diam., in.	2 $\frac{3}{8}$	2 $\frac{1}{2}$	2 $\frac{1}{4}$
Length, in.	3 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{3}{4}$
Wt. doz., lbs.	3	4 $\frac{1}{2}$	4 $\frac{3}{4}$
Per dozen	\$3.50	3.50	3.50

One dozen in a package.

LEAD DRESSERS



Lignumvitae

Per dozen
No. 296—12 in. long, 2 in. wide; wt.
per dozen 15 lbs.\$15.00
Open stock.

PLUMBERS' SCRAPERS



Extra quality forged steel, tempered,
polished hardwood handle.

Per dozen
No. 11—5 in. long; wt. per dozen 1 $\frac{1}{4}$
lbs.\$3.50
One-half dozen in a box.

BIBB SEAT REAMERS



Regular Style

With cone threaded on inside, for Bibbs
with outside thread. Handle and conc.
brass nickel plated, tool steel cutters.

Each
No. 417—With 4 cutters, one each
for $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$ in. Bibb;
wt. each 12 oz.\$2.00
One in a box.

FORCE CUPS

RIBBED

Red Rubber

High grade rubber.
Due to ribbed strength-
ened walls and good
quality the ribbed cup
is the snappiest, quick-
est acting and best on
the market.

With 24 in. wood handle.
Nos. 412 512
Diameter, in. 4 $\frac{1}{2}$ 5 $\frac{1}{2}$
Wt. dozen, lbs. 10 $\frac{1}{4}$ 12 $\frac{1}{2}$
Per dozen\$3.00 3.50
Open stock.

SOLDERING COPPERS

POINTED TYPE

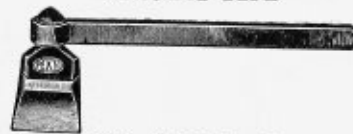


Drawn Copper, Forged

Nos.	Per pair	Wt. pair, lbs.	Nos.	Per pair	Wt. pair, lbs.
$\frac{1}{2}$ P	\$0.50	$\frac{1}{2}$	4P	\$2.25	4
1P	.75	1	5P	2.75	5
1 $\frac{1}{2}$ P	1.00	1 $\frac{1}{2}$	6P	3.00	6
2P	1.25	2	7P	3.50	7
2 $\frac{1}{2}$ P	1.50	2 $\frac{1}{2}$	8P	4.00	8
3P	1.75	3	10P	5.00	10
3 $\frac{1}{2}$ P	2.00	3 $\frac{1}{2}$	12P	6.00	12

Open stock.

HATCHET TYPE



With Swivel Handle Drawn Copper, Forged

Nos.	Per pair	Wt. pair, lbs.
H2	\$1.25	2
H3	1.75	3
H4	2.25	4

Note—Price of soldering coppers subject to market changes.

RADIO TYPE



For Radio and Electrical Work

Pure copper, tinned, hardwood handle.
Per dozen
No. A—9 $\frac{3}{4}$ in. long; wt. per doz. 1 $\frac{1}{2}$
lbs.\$3.00
One dozen in a box.

SOLDERING COPPER HANDLES



Soft wood, wax polish finish black
annealed wire bound.

Per dozen
No. 670—5 in. long, 1 $\frac{1}{2}$ in. diam.;
wt. per dozen 2 lbs.\$0.75
Three dozen in a box.

HYRO SHUR-GRIP



Wood grip, steel ferrule, flexible steel die locked in handle cuts a thread on the stem of soldering copper as the handle is screwed on. It can easily be taken off by unscrewing the handle.

Nos.	Per dozen	For coppers, lbs.	For stems, in.	Wt. doz., lbs.
7	\$3.00	1 $\frac{1}{2}$ to 4	$\frac{3}{8}$ —1 $\frac{1}{2}$	2 $\frac{1}{4}$
8	3.00	4 to 8	$\frac{1}{2}$ —2	3 $\frac{1}{8}$

One dozen in a box.

TINNERS' SNIPS WISS



**High Power
Regular Pattern**

Cutting edge made of crucible steel which is inlaid on blade, they are file hardened, tempered and specially ground, will not break or chew the work and will remain sharp a long time.

Tested to cut 20 D wire nails and will cut Monel metal and stainless steel.

Nos.	Each	Length, in.	Cut, in.	Wt. each, lbs.
13	\$1.30	7	2	$\frac{1}{2}$
12	1.40	8	2	$\frac{1}{2}$
11	1.70	9½	2¼	$\frac{3}{4}$
10	2.20	11½	2½	1½
9	2.30	12½	3	2
8	2.75	13¾	3½	2½
7	3.25	14½	4	3½
6½	4.00	15¾	4½	3½

One in a box.



**High Power
Combination Pattern**

Will cut curved as well as straight work. Made of same materials and workmanship as above snips.

Nos.	Each	Length, in.	Cut, in.	Wt. each, lbs.
100	\$2.25	11½	2½	1½
19	2.50	12½	3	1¾
18	3.00	13½	3½	2½
17	3.50	14½	4	2¾

One in a box.



**High Power
Curved Blade**

Cutting edge made of crucible steel which is inlaid on blade. They are file hardened, tempered, and specially ground. Will not break or chew the work and will remain sharp a long time.

Tested to cut 20 D wire nails and will cut Monel metal and Stainless steel.

Nos.	Each	Length, in.	Cut, in.	Wt. each, lbs.
12CB	\$2.25	7	2	$\frac{1}{2}$
11CB	2.50	9½	2¼	$\frac{3}{4}$
10CB	3.00	11½	2½	1½
9CB	3.50	12½	3	2
8CB	4.00	13¾	3½	2½
7CB	4.50	14½	4	3
6½CB	5.50	15¾	4½	3½

One in a box.

TINNERS' SNIPS WISS SCROLL-PIVOTER



Forged Steel

Cuts the most intricate shapes easily; it pivots; no other snip will do it as well; special finger guard in handle; full polish finish.

Each
No. 9X—12 in. long; wt. each 1¾
lbs. \$4.95

One in a box.

UTILITY AND HOUSEHOLD



Solid forged steel, red enameled handles, polished blades.

Nos.	Per doz.	Length, in.	Wt. each, lbs.
21JR	\$ 9.00	10	$\frac{3}{4}$
90JR	11.20	12	1½

AUTO OR POCKET



Solid forged steel, red enameled handles, polished blades.

Per dozen
No. 15JR—7 in. long; wt. each ½ lb. \$7.00

S. & H.



Solid forged steel, red enameled handles, polished blades. Hardened, tempered and edges carefully ground.

Nos.	Each	Length, in.	Cut, in.	Wt. doz., lbs.
578	\$0.80	7	2	6½
270	1.00	10	2¾	11

These snips are intended for regular use. No. 578 is a pocket size, No. 270 is a regular size.

Six in a box.

TINNERS' SNIPS BARTLETT COMPOUND LEVER



Searight Patent

Forged tool steel blades; polished head, japanned handles.

Nos.	Each	Length, in.	Cut, in.	Wt. each, lbs.
B7	\$3.00	7	1½	$\frac{3}{8}$
B8	4.50	8	1½	$\frac{5}{8}$
B10	6.75	10½	2½	1½
B12	9.00	12	2½	1½
B14	10.50	14	3¼	2½

*Pocket size, pressed tool steel.
One in a box.

CRESCENT



Circular Cutting

Forged steel. Special ground polished blades. Blue handles.

For cutting curves, fancy designs.

Nos.	Each	Length, in.	Cut, in.	Wt. each, lbs.
T47	\$1.10	7	1¾	$\frac{1}{2}$
T412	1.75	12¾	3	1¾

One in a box.

DOUBLE CUTTING SHEARS PENTO



With Crimping Attachment

Forged steel blade with hardened cutting edge. Malleable iron handles, polished heads and black japanned handles. Cuts stove pipe with clean edge. Length 12¾ inches.

Each
No. 2A—Wt. each 3 lbs. \$4.00
One in a box.

DENTAL SNIPS WISS



Forged Steel

Crucible steel inlaid blades, japanned handles, nickel plated blades.

Per dozen
No. 0—7½ in. long, 2 in. cut; wt. per
dozen 4 lbs. \$1.30
One-half dozen in a box.

PLUMBERS' LADLES



No. 373—Single Lip

Steel bowl, handle carefully welded on.

Size, in.	Per dozen	Holds lead, lbs.	Holds liquid, pints	Wt. doz., lbs.
2½	\$ 5.50	1¼	1½ oz.	6
3	6.50	2¼	2¾ oz.	6¼
3½	8.00	3	1 gill	11
4	9.00	4¼	1¼ gill	13
5	11.00	10¼	¾ pt.	26
6	13.00	14¼	1½ pt.	32
7	34.00	21	1¾ pt.	74
8	43.00	27½	2½ pt.	88
9	60.00	40	3½ pt.	128
10	70.00	50	5 pt.	152

Open stock.

SOLDER OR MELTING POTS



No. 153—Without Lips

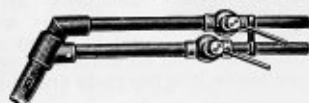
Cast iron, wrought iron bail.

Size, in.	Each	Holds lead, lbs.	Holds liquid, pints	Wt. each, lbs.
4	\$0.50	8¼	¾	1½
5	.60	16	1½	2½
6	.75	24	2	3½
7	1.25	40	4	5
8	1.50	70	6	8
10	2.50	120	10	16
12	4.00	200	16	30

Size given is outside diameter of pot.

Open stock.

BRASS BLOW PIPES



For Gas

Seamless brass, ground seated valve made from solid bar brass. They are good for heavy or light work, giving a large flame or a small thin flame effected by the movement of the gas and air levers.

Nos.	Each	Feed pipe, in.	Torch pipe, in.	Lgth., in.	Wt. each, lbs.
8C	\$4.00	¾	⅞	12½	1
8E	5.80	½	¾	14	2
8F	7.40	⅝	1	14½	2¼

BLOW TORCHES CLAYTON & LAMBERT



Mechanics' Favorite

Burner produces a 7-inch intense hot blue blast flame, can be regulated for lighter work. Gas orifice of burner is automatically cleaned. Equipped with windshield.

Each

No. 32A—1 quart capacity; wt. each 5¼ lbs.\$10.00

One in a box.



Standard Pint Torch

Produces ample heat for soldering fittings to copper pipe up to 2½ in. Very handy for corners and close places. Produces a large or small flame. Equipped with windshield.

Each

No. 238—1 pint capacity; wt. each 4 lbs.\$8.00

One in a box.



Popular Model

Produces an excellent flame. Has a self-cleaning burner supplied with non-enlargeable orifice and cleaner tip on control needle. Equipped with windshield.

Each

No. 144A—1 quart capacity; wt. each 4½ lbs.\$8.00



Home Workshop Model

For home workshop, garage and farm. Produces a good size flame, for indoor or outdoor use. Has a self-cleaning needle having a large shoulder to prevent orifice enlargement. Equipped with windshield.

Each

No. 158A—1 quart capacity; wt. each 4½ lbs.\$7.00

No. 160A—1 pint capacity; wt. each 3¾ lbs. 7.00

One in a box.

BLOW TORCHES CLAYTON & LAMBERT

For Occasional Use



Burner has a tapered burner tube closed at back producing a hot well controlled flame. Adapted to use on odd jobs under ordinary weather conditions.

Each

No. 600A—1 qt. cap. wt. each 4¼ lbs. \$6.50

One in a box.



For Odd Jobs

Produces a hot blue flame. Safety features are not sacrificed to low price in the construction of this torch. Very serviceable.

Each

No. 800—1 qt. cap.; wt. each 4½ lbs. \$5.00

One in a box.



For Tool Kits

Burner produces powerful blast which may be regulated. Self cleaning tip on control needle. Size 2 in. thick, 5 in. long, 9½ in. high. Equipped with windshield.

Each

No. 252—1 pint cap.; wt. each 4½ lbs. \$9.50

One in a box.

PARTS FOR CLAYTON & LAMBERT BLOW TORCHES



Nos.	Description	List Price
3607	Burner complete	\$10.00
3607A	Back burner and needle	5.00
3607B	Burner body	3.50
3607C	Burner body, back burner and needle	8.50
3632	Vein tube and wire strainer	.50
7817	Vein inlet sleeve	.75
3631	Valve needle with cleaner pin and stuffing box	1.50
3631A	Cleaner stem and pin (screws into needle)	.40
6950	Jet block	.40
2008	Stuffing box	.40
7827	Priming cup and screw	.50
7172	Burner hook	.25
7784	Cool cover for burner valve handle	.30
3576	Feed tube with strainer and wick	1.00
3689	Filler plug	.50
3522	Pump complete (inside threads 1 in. by 16)	3.70
3529	Brass tank (no pump or filler plug)	9.50

Note—No. 32A burner has ¼ in. I.P.S. feed tube and will fit any quart size torch.

BLOW TORCHES DREADNAUGHT



With Wind Shield

Drawn steel tank, flanged on inside and braced. Angle handle restful to operator. Burner made from heavy steel tubing with casting around coil giving exceptional heat. Automatic cleaning needle in valve stem.

Each

No. 41—1 quart capacity; wt. each 5 lbs.\$7.00

One in a box.

Utility Model



Drawn steel tank, cast brass burner equipped with soldering copper rest, seamless brass pump shell held in forged pump housing with pump plunger that can be easily removed.

Nos.	Each	Capacity	Wt., lbs.
21	\$6.50	Quart	4½
28	6.00	Pint	4

One in a box.

BLUE BLAST



Polished brass. Enameled handle. Produces a long intensely hot blue flame. The pre-heating cup quickly heats the burner and the torch then generates its own pressure.

No. H291—Cap. ½ pint; wt. each 1½ lbs.\$1.50

One in a carton.

TORCH FUEL

LENK



A scientifically compounded fuel for alcohol blow torches. Efficient, economical and prevents clogging of orifice.

No. TF—16 oz. can....\$0.40

BLOW TORCHES LENK AUTOMATIC



Generates Its Own Power

Brass, nickel plated, non-leakable, burns denatured alcohol.

No pumping, no priming, blows itself, flame heat 1400° Fahrenheit.

Each

No. 66—6½x2½x1¼ in.; wt. each 8 oz.\$1.75

One in a box.

LENK AJAX

Mouth Blow Type



Brass, nickel plated and highly polished. Produces needle type flame, burns commercial alcohol. Complete with ebony finished mouth piece and rubber tubing. The mechanics' choice for long continued service.

Each

No. 19—6x1½ in.; wt. each 6 oz....\$2.00

One in a box.

LENK CHAMPION



Generates Its Own Power

Mechanically fool-proof. Burns 3 hours on one filling, starts in 30 seconds, all parts interchangeable, built to last a life time

Each

No. 30—7x4¼x2 in.; wt. each 8 oz....\$3.00

One in a box.

LENK IMP

Entirely Automatic



Starts with a match. Perfect Bunsen flame of over 2000 degrees. No pumping, no blowing, uses gasoline, brass, nickel plated. For jobs requiring a melting, fusing or brazing heat.

Featured with priming cup for quick action.

Each

No. 17—7½x2¼ in.; wt. each 6 oz....\$1.00

One in a carton.

FIRE POTS

CLAYTON & LAMBERT—GASOLINE



General Utility

For the user who has a variety of odd jobs. Will heat soldering coppers or melt a pot of metal. Top shield may be removed and pot can be used as a torch. Wide burner mouth produces a flat flame

and the swivel enables the user to tilt the flame for melting metals or for heating the heels of soldering coppers. A cleaner tip keeps the gas orifice clear. Large pump supplies pressure quickly.

Each

No. 91—Capacity 1 gallon; wt. each 17 lbs.\$20.00

One in a box.

For Plumbers

Easy to start and simple to operate, burns low gravity gasoline perfectly in any kind of weather. Produces a large volume hot blast flame for melting pots, etc. Coil unit replaced in 45 seconds.

Capacity one gallon.

Each

No. 22A—Wt. each 15½ lbs.\$15.00

One in a box.

PLUMBERS' FURNACES

H. J. & C.



With Rubber Bulb and Safety Air Valve

Heavy steel reservoir, attractively enameled, patent air valve prevents back flow of gasoline into the bulb and safeguards the operator from accidental explosions and fires. Heavy one-piece metal shield, heavy cast

brass spider providing substantial support for the malleable iron top plate and shield.

Each

No. S5848—Capacity 7 pints; wt. each 15 lbs.\$12.00

One in a box.

EXTRA BULBS



For Plumbers' Furnaces

Per dozen

No. FB—High grade rubber.\$6.00

Open stock.

SOLDERING COPPER FURNACES YOST IMPROVED



With Adjustable Air Mixers

For natural or artificial gas. Cast iron tops with lid which is easily removed, leaving opening for glue pot.

	Each
No. 1—Single burner; wt. each 7½ lbs.	\$3.00
No. 2—Double burner; wt. each 10 lbs.	4.00
Open stock.	

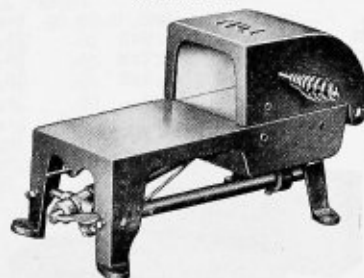


With Adjustable Air Mixers

For natural or artificial gas. With fire brick linings which retains heat.

	Each
No. 3—Single burner; wt. each 8 lbs.	\$4.00
No. 4—Double burner; wt. each 11 lbs.	5.00
Open stock.	

JOHNSON



For heating soldering irons, heat treating, tempering, annealing of small carbon steel tools, etc. Fire box lined with a heavy refractory lining, insuring uniform heat. Gas consumption 7,500 B.T.U.'s per hour.

	Each
No. 1—Single burner, 12 in. long, 3½x2½ in. fire pot opening; wt. each 12 lbs.	\$10.00
No. 101—Double burner, 14 in. long, 3¾x4½x5½ in. fire box; wt. each 18 lbs.	13.00

The No. 101 has a work rest block for holding parts to be heated, and a baffle plate, which partly closes the front opening of the furnace.

Open stock.

SHARPENING STONES CARBORUNDUM

Positively unequalled for rapid cutting qualities. Used dry or with water or oil.



Fine Grit

Nos.	Each	Size, in.	Weight doz., lbs.
115	\$1.50	8x2x1	17¼
118	1.35	8x2x¾	13
121	1.15	6x2x1	13
124	.95	6x2x¾	7
142	.70	4x1¾x½	3¼

Medium Grit

Nos.	Each	Size, in.	Weight doz., lbs.
116	\$1.50	8x2x1	17¼
119	1.35	8x2x¾	13
122	1.15	6x2x1	13
143	.70	4x1¾x½	3¼

Coarse Grit

Nos.	Each	Size, in.	Weight doz., lbs.
117	\$1.50	8x2x1	17¼
123	1.15	6x2x1	13

One in a box, six in a carton.

CARBORUNDUM COMBINATION



One Side Coarse, Other Side Fine Grit

Nos.	Each	Size, in.	Weight doz., lbs.
108	\$1.75	8x2x1	14½
110	1.50	7x2x1	12¼
109	1.25	6x2x1	12½
111	1.00	5x2x¾	6½
112	.85	4x1¾x½	4¾

One in a box, six in a carton.

CARBORUNDUM ROUND COMBINATION



One Side Coarse, Other Side Fine

No.	Each
107—4 in. diam., 1 in. thick; wt. per dozen 11 lbs.	\$1.25

One in a box; six in a carton.

CARBORUNDUM MACHINISTS' SPECIAL



Fine Grit

Extra hard, for sharpening cutters, reamers and lathe tools.

No.	Each
No. 292F—4 in. long, 1 in. wide, ½ in. thick; wt. dozen 1¾ lbs.	\$0.55

One in a box.

SHARPENING STONES CARBORUNDUM SLIPS



Cut rapidly and hold their shape perfectly.

Fine Grit

Nos.	Each	Length, in.	Width, in.	Thick., in.	Weight doz., lbs.
180	\$0.90	4½	2½	5/8 x 7/8	4½
183	.65	4½	1¾	1/2 x 7/8	2¾

Each

No. 181—Medium, 4½x2½x5/8—7/8 in.; wt. per dozen 4½ lbs. \$0.90

No. 182—Coarse, 4½x2½x5/8—7/8 in.; wt. per dozen 4½ lbs.90

One in a box, six in a carton.

CARBORUNDUM POCKET HONE



Fine Grit

For sharpening pocket knives, ink erasers and small tools.

No. 149L—3x¾x¾ in., put up in handy leather case; wt. per dozen 1½ lbs. \$3.00

One dozen in a box, six on a card, six loose.

CARBORUNDUM AXE STONES



Medium Grit

A great stone for lumbermen, as well as for the hunter or camper. Will produce a sharp, keen edge on the dulllest of axes in a very few moments.

No. 195—2½x2½x1½ in.; wt. per dozen 3 lbs. \$0.45

One in a box, six in a carton.

Carborundum brand sharpening stones, are positively unequalled for rapid cutting qualities. Used dry, with water or oil.

They are quite porous and may be tempered in their cutting by filling with wax or vaseline.

SHARPENING STONES

INDIA

Alundum abrasive, unequalled by any artificial stone in speed of cut, long life, maintenance of shape and smoothness of resulting edge on tool. Factory-impregnated with oil and ready for use.



Fine Grit

Nos.	Each	Size, in.	Wt. dz., lbs.
FB14	\$0.50	4x1 x 1/4	1 1/2
FB24	.55	4x1 x 1/2	3
FB124	.70	4x1 3/4 x 1/2	4 1/2
FB35	.85	5x2 x 3/8	8
FB26	.75	6x1 1/2 x 1/2	5
FB36	.95	6x2 x 3/8	9 1/2
FB6	1.15	6x2 x 1	14 1/2
FB7	1.25	7x2 x 1	17
FB48	1.35	8x2 x 3/4	16
FB8	1.50	8x2 x 1	20

Medium Grit

Nos.	Each	Size, in.	Wt. dz., lbs.
MB14	\$0.50	4x1 x 1/4	1 1/2
MB24	.55	4x1 x 1/2	3
MB124	.70	4x1 3/4 x 1/2	4 1/2
MB35	.85	5x2 x 3/8	8
MB26	.75	6x1 1/2 x 1/2	5
MB36	.95	6x2 x 3/8	9 1/2
MB6	1.15	6x2 x 1	14 1/2
MB7	1.25	7x2 x 1	17
MB48	1.35	8x2 x 3/4	16
MB8	1.50	8x2 x 1	20

Coarse Grit

Nos.	Each	Size, in.	Wt. dz., lbs.
CB14	\$0.50	4x1 x 1/4	1 1/2
CB24	.55	4x1 x 1/2	3
CB6	1.15	6x2 x 1	14 1/2
CB7	1.25	7x2 x 1	17
CB8	1.50	8x2 x 1	20

One in a box, six in a carton.

INDIA COMBINATION



One Side Coarse, Other Side Fine

Nos.	Each	Size, in.	Wt. dz., lbs.
IB134	\$0.85	4x1 3/4 x 3/8	5
IB45	1.00	5x2 x 3/8	7
IB6	1.25	6x2 x 1	14 1/2
IB7	1.50	7x2 x 1	17
IB8	1.75	8x2 x 1	20

One in a box, six in a carton.

INDIA ROUND COMBINATION

One Side Coarse,
Other Side Fine



Each
No. IB64—4 in. diam.,
1 in. thick; wt. per
dozen 16 lbs.\$1.25

One in a box, six in a carton.

SHARPENING STONES

INDIA SLIPS



For sharpening gouges and other tools with curved edges.

Fine Grit

Nos.	Each	Length, in.	Width, in.	Thick, in.	Wt. dz., lbs.
FS24	\$0.65	4 1/2	1 3/4	1/4-3/8	1 1/2
FS34	.65	4 1/2	1 3/4	3/8-1/2	2 1/2
FS44	.65	4 1/2	1 3/4	1/2-3/4	3 1/2

Medium Grit

Nos.	Each	Length, in.	Width, in.	Thick, in.	Wt. dz., lbs.
MS24	\$0.65	4 1/2	1 3/4	1/4-3/8	1 1/2
MS34	.65	4 1/2	1 3/4	3/8-1/2	2 1/2
MS44	.65	4 1/2	1 3/4	1/2-3/4	3 1/2

Coarse Grit

Nos.	Each	Length, in.	Width, in.	Thick, in.	Wt. dz., lbs.
MC24	\$0.65	4 1/2	1 3/4	1/4-3/8	1 1/2
MC34	.65	4 1/2	1 3/4	3/8-1/2	2 1/2
MC44	.65	4 1/2	1 3/4	1/2-3/4	3 1/2

One in a box, six in a carton.

INDIA SPECIAL GOUGE SLIP



Fine Grit

For sharpening gouges and other curved edge tools.

No. FS76—6x2x1x3/8 in.; wt. per doz.
5 lbs.\$1.50
One in a box, six in a carton.

HARD ARKANSAS



Selected Fine Grain

For sharpening fine tools used by experts. Gives the finest edge of any oil stone in existence.

Nos.	Each	Size, in.	Wt. dz., lbs.
HB5	\$5.00	5x2x3/4-1	6 3/4
HB6	6.00	6x2x3/4-1	12 3/4
HB7	7.00	7x2x3/4-1	15
HB8	8.00	8x2x3/4-1	18

One in a box.

ARKANSAS PENKNIFE PIECES

Hard



For sharpening pocket knives, surgical instruments, engravers' tools, etc.

No. HB14—4x1 1/4 x 3/8 in.; wt. per dozen 2 lbs.\$0.70
One in a box, six in a carton.

HARD ARKANSAS SLIPS



Produces finest oil stone finish on curved edges and surfaces.

Each
No. HS4—4x1 3/4 x 2x3/8-1/2 x 1/8-1/4 in.;
wt. each 3 oz.\$1.50
Three in a package.

SHARPENING STONES

LILY WHITE WASHITA



Uniform Texture

A natural stone that produces smooth, long lasting edges. Nicely finished.

Nos.	Each	Size, in.	Wt. dz., lbs.
LB6	\$1.00	6x2x1-3/4	12
LB7	1.10	7x2x1-3/4	14
LB8	1.35	8x2x1-3/4	16

One in a box, six in a carton.

No. 1 WASHITA



A natural stone for general use.

Nos.	Each	Size, in.	Wt. dz., lbs.
NB6	\$0.80	6x2x1-3/4	12
NB7	.90	7x2x1-3/4	14
NB8	1.15	8x2x1-3/4	16

One in a box, six in a carton.

WASHITA MOUNTED



In Hardwood Boxes

Nicely finished; No. 1 Washita stone.

Nos.	Each	Size, in.	Wt. dz., lbs.
NM6	\$1.00	6x2	14
NM7	1.15	7x2	16
NM8	1.40	8x2	18

Six in a carton.

QUEER CREEK



A good low priced natural stone for sharpening carpenters' tools. Per dozen
No. KB8—8x2x1-3/4 in.; wt. per doz.
15 lbs.\$4.20

One in a box, six in a carton.

LILY WHITE WASHITA SLIPS



For sharpening gouges and curved edge tools.

Each
No. LS4—4x1 3/4 x 2x3/8-1/2 x 1/8-1/4 in.;
wt. dozen 2 1/2 lbs.\$0.40
Twelve in a package.

CARBORUNDUM STICKS



Adapted to work of jewelers, die makers, engravers, etc., made in three grits; fine, medium and coarse.

Square

Size, in.	Each	Fine, No.	Medium, No.	Coarse, No.	Wt. doz., lbs.
4x1/4	\$0.40	F1	M1	C1	3/8
4x1/8	.45	F3	M3	C3	1/2
4x3/8	.45	F5	M5	C5	5/8
4x1/2	.45	F7	M7	C7	1
6x3/8	.60	F33	M33	C33	7/8
6x1/2	.60	F35	M35	C35	1 3/8
6x5/8	.65	F37	M37	C37	2 1/8
6x3/4	.65	F39	M39	C39	4 3/8
6x1	.70	F41	M41	C41	5

Triangular

Size, in.	Each	Fine, No.	Medium, No.	Coarse, No.	Wt. doz., lbs.
4x1/4	\$0.50	F9	M9	C9	7/8
4x1/8	.55	F11	M11	C11	1 1/8
4x3/8	.55	F13	M13	C13	1 1/4
4x1/2	.55	F15	M15	C15	1 1/2
6x3/8	.70	F43	M43	C43	1 1/2
6x1/2	.70	F45	M45	C45	5/8
6x5/8	.75	F47	M47	C47	1 1/8
6x3/4	.75	F49	M49	C49	1 1/2
6x1	.80	F51	M51	C51	3

Half Round

Size, in.	Each	Fine, No.	Medium, No.	Coarse, No.	Wt. doz., lbs.
4x1/4	\$0.50	F17	M17	C17	7/8
4x1/8	.55	F19	M19	C19	1 1/8
4x3/8	.55	F21	M21	C21	1 1/4
4x1/2	.55	F23	M23	C23	1 1/2
6x3/8	.70	F53	M53	C53	5/8
6x1/2	.70	F55	M55	C55	3/4
6x5/8	.75	F57	M57	C57	7/8
6x3/4	.75	F59	M59	C59	1 1/4
6x1	.80	F61	M61	C61	2 3/8

Round

Size, in.	Each	Fine, No.	Medium, No.	Coarse, No.	Wt. doz., lbs.
4x1/4	\$0.60	F25	M25	C25	1 1/4
4x1/8	.65	F27	M27	C27	1 1/8
4x3/8	.65	F29	M29	C29	3/8
4x1/2	.65	F31	M31	C31	3/4
6x3/8	.80	F63	M63	C63	5/8
6x1/2	.80	F65	M65	C65	1 1/8
6x5/8	.85	F67	M67	C67	1 3/4
6x3/4	.85	F69	M69	C69	2 1/4
6x1	.90	F71	M71	C71	4 1/4

4 inch, 6x3/8 and 6x1/2 in., twelve; balance six in a package.

RUBBING BRICKS CARBORUNDUM



Coarse Grit

For smoothing down granite and marble; also for scouring castings; used dry or with oil.

Nos.	Each	Size, in.	Weight doz., lbs.
211	\$1.40	8x2x2	30 1/4
212	.85	8x2x1	13 1/2
214	1.10	6x2x2	17
215	.70	6x2x1	11 1/2
222	.85	4x2x2	14
223	.55	4x2x1	7

Open stock.

RUBBING BRICKS CARBORUNDUM



Fluted Two Sides

For removing form and mould marks and dressing down all kinds of concrete work.

No. 285—8x2x2 in.; wt. dozen 40 lbs. \$1.40

Open stock.

SCYTHE STONES CARBORUNDUM



Cuts Fast and Clean

Uniform grit, will not glaze, made from silicon carbide.

Nos.	Per dozen	Length, in.	Width, in.	Thick., in.	Weight doz., lbs.
190	\$3.00	10	1	5/8	5 1/2
192	3.60	10	1 1/4	3/4	7 3/4
191	4.20	12	1 1/4	3/4	8 1/4

One dozen in a display box.

BLACK DIAMOND



A favorite of skilled mowers, where an extremely keen edge is desired for cutting fine, tough grass. Also splendid for sharpening knives.

No. TL4—10x1 1/4 x 1/2 in.; wt. per dozen 9 lbs. \$3.00
One dozen in a display carton.

GREEN MOUNTAIN



A light weight stone, oval shaped, has sharp grit and produces a fine edge. Useful sharpeners for household knives.

No. TL10—10x1 1/4 x 1/2 in.; wt. per dozen 10 lbs. \$1.80
One dozen in a carton.

ENGLISH ROUND



Heavy natural stone, used by gardeners and farmers, made from coarse sandstone. Oval shape.

No. TN14—12 in. long, 1 1/2 in. thick approximately; wt. per box 50 lbs. \$35.00

Twenty-five in a box.

OILERS EAGLE, BENCH



Straight Spout

Cold rolled steel, copper plated. Seamless drawn steel body; double seamed spring steel bottom; reinforced insert type spout; 1 1/8 in. wide mouth opening.

Nos.	Per dozen	Cap., pints	Length, spout, in.	Diam., in.	Weight doz., lbs.
12	\$4.50	1/4	3	2 7/8	2 1/4
13	5.50	1/2	3	3 1/2	2 3/4
13A	6.00	1/2	5	3 1/2	3
14A	7.50	1/2	3	4	4
14AA	8.00	1/2	5	4	4 1/4
15	9.25	1	3	4 1/8	5
15A	9.75	1	5	4 1/8	5 1/4

One dozen in a carton.



Bent Spout

Cold rolled steel, copper plated. Seamless drawn steel body; double seamed spring steel bottom. Reinforced insert type spout; 1 1/8 in. wide mouth opening.

Spout 7 inches long.

Nos.	Per dozen	Capacity, pints	Diam., in.	Wt. doz., lbs.
14	\$6.50	1/2	3 1/2	3 1/2
14B	8.50	1/2	4	4 1/2
16	10.50	1	4 1/8	5 1/2

One dozen in a carton.

GEM POLISHED STEEL BENCH



Brazed one-piece heavy sheet steel body.

Tempered spring steel bottom; one-piece steel neck; brass spelter brazed; cut leather



washer; heavy gauge brass steel spout.

Straight Spout

Nos.	Per dozen	Cap., pints	Length, spout, in.	Diam., in.	Weight doz., lbs.
1604	\$5.00	1/2	4	3 3/8	3 3/8
1704	6.00	1/2	4	3 3/4	4 1/8

Bent Spout

Nos.	Per dozen	Cap., pints	Length, spout, in.	Diam., in.	Weight doz., lbs.
1706	\$6.50	1/2	6	3 3/4	5
1809	8.00	3/4	9	4 1/4	6 1/4
1909	9.00	1	9	4 1/2	7 1/4

One dozen in a carton.

OILERS

BEACON FLEXIBLE SPOUT



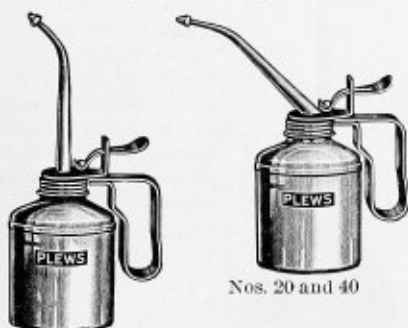
Flexible spout 6½ inches long. The spout will not break or crimp if stepped on. By bending spout you can oil anywhere. Heavy steel, especially adapted for automobile use.

Nos.	Per dozen	Capacity pints	Diam. in.	Wt. doz. lbs.
16F	\$10.00	½	3¾	3¾
17F	11.00	½	3¾	4½
19F	13.00	1	4½	6¾

One dozen in a box.

PLEWS FORCE FEED

All metal action, no leather valves or plungers to deteriorate, brass cone shaped tip on spout for clean and effective oiling, spout pump and handle one detachable unit. Lever handle, cadmium plated balls and bronze spring, nickel plated finish.



Nos. 20 and 40

Nos. 10, 30 and 35

Nos.	Per dozen	Capacity pints	Spout, in.	Wt. doz. lbs.
10	\$15.00	¾	5	8
30	16.20	¾	9	10
35	21.00	1½	9	12
20	15.00	¾	5	8
40	22.20	1½	9	12

One dozen in a carton.

Automotive and Factory Model

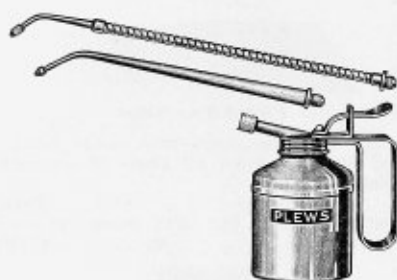
Rigid, detachable spout, adapted for use with all types of machinery and for automotive service work. Nickel plated finish. All metal action, no leather valves or plungers to deteriorate. The lever handle makes it easy to operate and gives perfect control.



Per dozen
No. 45D—1 qt. capacity; 11 in. rigid detachable spout; wt. per dozen 18 lbs.\$28.20
One dozen in a carton.

OILERS

PLEWS FORCE FEED



Nickel Plated Finish

Models 42D and 60D with flexible spout detachable nozzle, are used for oiling several almost inaccessible parts of latest models of cars. Also used for filling oil cups and bearings difficult of access in shops and factories.

No. 42D—1½ Pt. Capacity

	Each
With 18 in. Flex. Spout, detach. nozzle	\$2.40
With 16 in. Flex. Spout, straight vent	2.40
With 10 in. Rigid Spout	2.00
With 16 in. Rigid Spout	2.25

No. 60D—1 Quart Capacity

	Each
With 18 in. Flex. Spout, detach. nozzle	\$3.00
With 16 in. Flex. Spout, straight vent	3.00
With 11 in. Rigid Spout	2.60
With 16 in. Rigid Spout	2.85

Shipping weight dozen 18 pounds.
Open stock.

PLEWS 33 SERIES FORCE FEED



Vertical Spout Models Plain Vents

Large plated steel balls, hard to clog and readily accessible for cleaning out chaff or dirt; big strong brass tubes, durable and efficient, phosphor bronze springs, will not rust, cadmium plated rust-proof finish. Lower section of body one-piece drawn steel no seam to wear.

Per dozen
No. 3310—Capacity ¾ pint, 5 in. spout; wt. per dozen 8 lbs.\$10.29
Plews force feed oilers pump any grade of oil that will flow, winter or summer once primed, the pump will feed when the oiler is held in any position. The entire pump is quickly removable, both upper and lower valves are easy to reach for cleaning. The large valve balls close of their own weight.
One dozen in a carton.

OILERS
EAGLES RAILROAD

Copper Plated

Highest grade cold rolled steel; welded; seamless drawn steel body; genuine double seamed bottoms. Solid brass spout bushings with cut thread. Reinforced insert type spout. Handle spot welded to body. 1 in. filler opening with vent in filler cap. All sizes interchangeable.



Nos.	Per dozen	Capacity	Diam. in.	Spout, in.	Wt. doz. lbs.
10	\$14.00	1 pt.	3½	12	9½
11	18.00	1 qt.	4¼	18	14½

One-half dozen in a carton.

Extra Heavy Pattern, Copper Plated

Seamless drawn steel body; genuine double seamed bottom; 1 in. filler opening with vent in filler cap. Extra large welded steel spout with heavy rolled threads, reinforced insert type. Heavy leather gasket; handle spot welded to body. All sizes interchangeable.



Nos.	Per dozen	Cap. qts.	Diam. in.	Spout, in.	Wt. doz. lbs.
101	\$18.00	1	4¼	10½	14
111	20.00	2	5	14½	21

One-half dozen in a carton.

ENGINEERS' FILLERS
EAGLE

Copper Plated

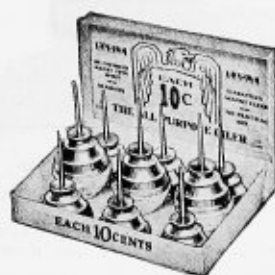
Highest grade cold rolled steel; genuine double seamed bottom. Threaded filler cap and filler opening. Handle welded to body. Seamless welded steel spout.

Nos.	Per dozen	Cap. qts.	Diam. in.	Spout, in.	Wt. doz. lbs.
210	\$20.00	1	5½	6¾	13
211	24.00	2	6¾	6¾	17½

One-half dozen in a carton.

OILERS

DIME DISPLAY ASSORTMENT



Copper plated steel oilers, with reinforced insert type spouts.

Per assortment

No. 32 Assortment—Consists of one dozen copper plated oilers, $\frac{1}{2}$ pt. capacity with 3 in. spouts, put up in a display carton; wt. per assortment 2 $\frac{3}{4}$ lbs.\$1.30

One in a carton.

NEW HANDY ASSORTMENT



Copper plated oilers; reinforced insert type spout. All sizes interchangeable.

Used by mechanics, plumbers, farmers, householders, etc.

Per assortment

No. 1314—Consists of one dozen oilers as enumerated below; wt. per assortment 3 $\frac{1}{2}$ lbs.\$2.70

One assortment in a display carton.

Contents of Assortment

4 only—No. 13A; cap. $\frac{1}{2}$ pt.; 5 in. straight spout.

4 only—No. 14; cap. $\frac{1}{2}$ pt.; 9 in., bent spout.

4 only—No. 14AA; cap. $\frac{1}{2}$ pt.; 5 in. straight spout.

BRICK TROWELS

W. ROSE



No. 110—Philadelphia Pattern

Tempered and polished high grade crucible steel blade, solid shank, 6 in. hardwood handle with polished steel ferrule.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
10	\$28.00	5 $\frac{1}{8}$	12 $\frac{1}{2}$
10 $\frac{1}{2}$	29.00	5 $\frac{1}{4}$	13
11	31.00	5 $\frac{1}{2}$	13 $\frac{1}{2}$
11 $\frac{1}{2}$	31.00	5 $\frac{3}{8}$	14
12	32.00	5 $\frac{1}{2}$	14 $\frac{1}{2}$

One-half dozen in a box.



No. 310—Philadelphia Pattern, Leather Handle

Extra quality, steel blade, carefully tempered, ground and polished, solid shank, 5 $\frac{1}{2}$ in. handle; polished ferrule.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
10 $\frac{1}{2}$	\$33.20	5 $\frac{1}{8}$	13
11	34.20	5 $\frac{1}{4}$	13 $\frac{1}{2}$
11 $\frac{1}{2}$	35.20	5 $\frac{1}{2}$	14
12	36.20	5 $\frac{3}{8}$	14 $\frac{1}{2}$

One-half dozen in a box.



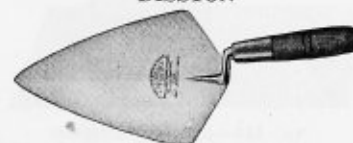
No. 321—Wide Heel Pattern, Leather Handle

Extra quality cast steel blade, carefully tempered, ground and polished, solid shank, polished steel ferrule.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
10 $\frac{1}{2}$	\$34.00	6	14
11	35.00	6	14 $\frac{1}{2}$
11 $\frac{1}{2}$	36.00	6	15

One-half dozen in a box.

DISSTON



No. 36—Wide Heel Pattern

Disston steel blade, taper ground from heel to point and from center to edges, polished and lacquered to prevent rust, hickory handle, polished steel ferrule.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
10 $\frac{1}{2}$	\$29.00	6 $\frac{3}{8}$	13 $\frac{1}{4}$
11	30.00	6 $\frac{1}{2}$	14

One-half dozen in a box.

BRICK TROWELS

STANDARD



No. 152—Philadelphia Pattern

Forged steel blade, tempered, ground and polished, solid shank, hardwood handle, polished steel ferrule.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
9	\$15.75	4 $\frac{1}{8}$	9
10	16.50	4 $\frac{1}{4}$	9 $\frac{1}{4}$
11	16.75	5 $\frac{1}{8}$	11 $\frac{1}{4}$
12	17.50	5 $\frac{1}{2}$	13 $\frac{1}{2}$

One-half dozen in a box.

HANDY



Riveted Shank

Bright steel blade, hardwood handle, steel ferrule.

Per dozen

No. 170—10 in. long; wt. per dozen 6 $\frac{1}{2}$ lbs.\$4.00

One dozen in a box.

POINTING TROWELS DISSTON



No. 15—Regular Pattern

Blade, post and tang forged from one piece of Disston steel, hardened, tempered, polished and lacquered to prevent rust while in dealers stock. Made with a spiral tang for locking the handle to the trowel. Post at right angle to the blade. Handle set for correct lift and balance. Hickory handle 4 $\frac{1}{2}$ in. long, strong steel ferrule 1 in. long.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
5	\$10.25	2 $\frac{1}{2}$	4 $\frac{3}{4}$
6	11.00	2 $\frac{3}{4}$	6 $\frac{1}{4}$

One-half dozen in a box.

STANDARD



No. 153—Regular Pattern

Polished steel blade; solid shank; hardwood handle; steel ferrule.

Length Blade, in.	Per dozen	Width blade, in.	Wt. doz., lbs.
5	\$7.20	2 $\frac{1}{4}$	3
6	8.00	2 $\frac{3}{4}$	3 $\frac{1}{2}$

One-half dozen in a box.

HANDY



Bright steel blade, natural wood handle.

Per dozen

No. 160—5 $\frac{1}{2}$ in. blade; wt. per dozen 3 $\frac{1}{2}$ lbs.\$2.50

One dozen in a box.

PLASTERING TROWELS MARSHALLTOWN



Finishing

High grade spring steel blade tempered, ground and polished. Special analysis light rigid mounting fastened to blade with ten hard steel rivets, smooth finished bass wood handle. Lacquered finish.

Nos.	Per dozen	Length, in.	Width, in.	Wt. lbs. dozen
MF3	\$33.00	11	4 $\frac{3}{4}$	12 $\frac{1}{2}$
MF6	33.00	11 $\frac{1}{2}$	5	13
MF7	33.00	12	5	13 $\frac{1}{2}$

One-third dozen in a box.



Browning

For first coat work, has longer mounting than finishing trowel. Sizes over 11 in. have twelve rivets. High grade steel blade tempered, ground and polished, smooth finished bass wood handle, lacquered finish.

Nos.	Per dozen	Length, in.	Width, in.	Wt. lbs. dozen
MB3	\$33.00	11	4 $\frac{3}{4}$	12 $\frac{1}{2}$
MB6	33.00	11 $\frac{1}{2}$	5	13
MB7	33.00	12	5	13 $\frac{1}{2}$

One-third dozen in a box.

MARSHALLTOWN XTALITE



Finishing

Highest grade taper ground, flexible spring steel blade, aluminum alloy mounting, 10 rivet basswood handle.

Nos.	Per dozen	Length, in.	Width, in.	Wt. lbs. dozen
MX3	\$33.00	11	4 $\frac{3}{4}$	12 $\frac{1}{2}$
MX6	33.00	11 $\frac{1}{2}$	5	13
MX7	33.00	12	5	13 $\frac{1}{2}$

One in a box.

DISSTON STAINLESS STEEL



Finishing

Disston stainless steel blade, will not stain the work, improved ferrous metal mounting, ten stainless steel countersunk rivets, smooth finished basswood handle.

Nos.	Per dozen	Length, in.	Width, in.	Wt. lbs. dozen
No. 228	\$50.00	11	4 $\frac{3}{4}$	12 $\frac{1}{2}$
No. 228	50.00	11 $\frac{1}{2}$	5	13
No. 228	50.00	12	5	13 $\frac{1}{2}$

One-half dozen in a box.

PLASTERING TROWELS DISSTON



No. 38—Finishing

Disston steel blade, hardened tempered and ground, ferrous metal mounting, ten rivets, flat thumb rest, smooth finish California pattern hardwood handle, lacquered finish.

Length, in.	Per dozen	Width, in.	Wt. dozen, lbs.
10 $\frac{1}{2}$	\$30.50	4 $\frac{1}{2}$	13 $\frac{1}{2}$
11	32.50	4 $\frac{3}{4}$	14
11 $\frac{1}{2}$	34.25	4 $\frac{3}{4}$	14 $\frac{1}{4}$

One-half dozen in a box.



Flexolite Finishing

Disston steel blade, hardened, tempered and ground, heat treated aluminum alloy mounting, fastened with ten rivets, flat thumb rest, smooth finish, basswood handle, lacquered finished.

Nos.	Per dozen	Length, in.	Width, in.	Wt. dozen, lbs.
No. 338	\$40.00	11	4 $\frac{3}{4}$	12 $\frac{1}{2}$
No. 338	40.00	11 $\frac{1}{2}$	5	13
No. 338	40.00	12	5	13 $\frac{1}{2}$

One in a box.



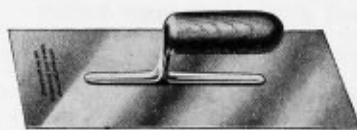
No. 16—Finishing

Disston steel blade, hardened and tempered, ferrous metal mounting, seven rivets, smooth finish basswood handle, lacquer finish.

Length, in.	Per dozen	Width, in.	Wt. dozen, lbs.
10 $\frac{1}{2}$	\$27.50	4 $\frac{1}{2}$	12 $\frac{1}{4}$
11	29.50	4 $\frac{3}{4}$	12 $\frac{1}{2}$
11 $\frac{1}{2}$	31.00	4 $\frac{3}{4}$	13 $\frac{1}{4}$

One-half dozen in a box.

STANDARD



No. 150—Regular Pattern

Special steel blade, hardened and tempered, smooth finish hardwood handle, lacquer finish.

Length, in.	Per dozen	Width, in.	Wt. dozen, lbs.
10	\$14.25	4 $\frac{1}{2}$	11 $\frac{3}{4}$
10 $\frac{1}{2}$	15.00	4 $\frac{1}{2}$	14 $\frac{1}{2}$
11	15.75	4 $\frac{1}{2}$	14 $\frac{3}{4}$
11 $\frac{1}{2}$	17.00	4 $\frac{1}{2}$	15 $\frac{1}{4}$
12	18.50	4 $\frac{1}{2}$	15 $\frac{3}{4}$

One-half dozen in a box.

PLASTERING TROWELS HANDY



For Home or Farm Use

Bright steel blade, forged steel shank, natural wood handle.

Nos.	Per dozen	Length, in.	Width, in.	Wt. dozen, lbs.
No. 180	\$4.00	10	4	10
No. 180	4.00	10	4	10

One-half dozen in a box.

CEMENTERS' TROWELS DISSTON



No. 68—Flexible Blade

Disston steel blade, hardened, tempered and accurately ground. Long, strong specially treated ferrous metal mounting, flat thumb rest, basswood handle.

Length, in.	Per dozen	Width, in.	No. rivets	Wt. dozen, lbs.
12	\$36.00	4	10	13
14	40.00	4	12	14 $\frac{1}{4}$
16	45.00	4	12	17 $\frac{3}{4}$

One-half dozen in a box.

MARGIN TROWELS DISSTON



One-piece Disston steel blade, post and tang; hardened and tempered, polished and lacquered hickory handle, steel ferrule.

Nos.	Per dozen	Length, in.	Width, in.	Wt. dozen, lbs.
25	\$7.50	4	1 $\frac{1}{2}$	3
28	7.50	5	2	3 $\frac{1}{4}$

One-half dozen in a box.

DISSTON NARROW



One-piece Disston steel blade, post and tang, hardened and tempered, polished and lacquered hickory handle, steel ferrule.

Nos.	Per dozen	Length, in.	Width, in.	Wt. dozen, lbs.
272	\$7.50	5	1 $\frac{1}{2}$	2
273	7.50	5	1 $\frac{1}{2}$	2 $\frac{1}{2}$

One-half dozen in a box.

IMITATION TILE MARKERS MARSHALLTOWN



Polished Spring Steel Blade
Hardwood handle, polished steel ferrule.
Per dozen
No. 1—1½ in. cutter; wt. per dozen
2 lbs.\$6.00
One-half dozen in a box.



Polished Spring Steel Blade
Hardwood handle, polished steel ferrule.
Per dozen
No. 2—2½ in. cutter; wt. per dozen
2 lbs.\$6.00
One-half dozen in a box.

PLASTERERS' MITERING TOOLS GENUINE TYZACK



Right Flexible Leaf and Square
High grade English steel, carefully tempered.
Per dozen
No. C25—Assorted ½ to 1 in. wide;
wt. per dozen 1 lb.\$15.00
One dozen in a box.

WOOD FLOATS MARSHALLTOWN

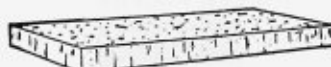


Plain Face
Clear seasoned wood finished, smooth and equipped with smooth wood handle.
Per dozen
No. 44—12x5x¾ in.; weight per dozen 13 lbs.\$6.00
One-third dozen in a box.



Cork Faced
¾ in. selected cork face, glued to ½ in. wood back. Equipped with smooth wood handle.
Per dozen
No. 42—10½x4x1¼ in.; wt. per dozen 12 lbs.\$16.00
One-quarter dozen in a box.

CORK FLOATS



Solid Cork
Smoothed on both sides, for plasterers' use. Square edges.
Nos. Per dozen Lgth. Width. Wt. doz., lbs.
5 \$13.00 11 4 5
6 15.00 12 5 5½
Open stock.

PLASTERERS' ANGLE PADDLES MARSHALLTOWN



Seasoned Hard Maple
Beveled to a working edge, 8 in. long 3 in. wide, ¾ in. thick.
Per dozen
No. 336—Plain edge\$3.00
No. 337—Inserted bronze blade.... 4.25
Weight per dozen 3½ pounds.
One-half dozen in a box.

PLASTERERS' DARBIES MARSHALLTOWN ALUMINUM



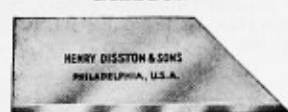
Hard Rolled, Straight Smooth Edges
Per dozen
No. 2—44 in. long, 3½ in. wide, 18 in. rib, 3½ in. handle; wt. per dozen 30 lbs.\$50.00
One-half dozen in a box.

MARSHALLTOWN WOOD



Made of clear seasoned redwood, ½ in. thick, 18 in. long rib, 3½ in. round wood handle.
Per dozen
No. 02—44x3¼ in.; weight per doz. 18 lbs.\$9.00
One-half dozen in a box.

PLASTERERS' MITRE RODS DISSTON



With 45 Degree Angle
Disston steel, hardened, tempered and polished, long edge beveled. For mitering, striking corners, etc.
Lgth. Per Width Gauge Wt. in. doz. in. doz., lbs.
6 \$ 6.00 3¼ 18 2¾
8 8.00 3½ 17 4¼
10 10.00 3½ 17 5½
12 13.00 3¾ 16 8¼
14 15.00 3¾ 16 9¾
16 17.00 3¾ 16 11½
18 19.00 4 14 16
One-half dozen in a box.

PLASTERERS' HAWKS MARSHALLTOWN ALUMINUM



With Detachable Handle and Rubber Callous Preventer
Hard rolled aluminum, patent aluminum flange; 5 in. handle with bolt extending all the way through.
Nos. Per dozen Size, in. Wt. doz., lbs.
1 \$32.00 13x13 27
2 33.00 13½x13½ 28
One-quarter dozen in a box.

MARSHALLTOWN WOOD



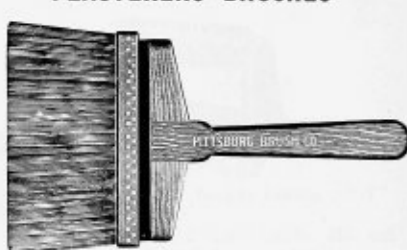
Seasoned redwood, 4½ in. detachable handle, dovetailed wedge.
Per dozen
No. 22—13½x13½ in.; wt. per doz. 24 lbs.\$15.00
One-third dozen in a box.

CALLOUS PREVENTERS



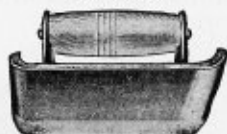
For use on plasterers' hawks. Made from sponge rubber, protects the hands from callouses.
Per dozen
No. 0—3¼ in. diam., ¼ in. thick, 1¼ in. hole; wt. doz. ¾ lbs.\$3.00

PLASTERERS' BRUSHES



Extra Extra
Finest grade special selected bristles.
Each
No. 204—8 in. wide\$15.00
Special
Standard selected bristles.
Each
No. 197—8 in. wide\$7.00
Browning
Regular mixed bristles.
Each
No. 196—8 in. wide\$4.50
Six in a box.
Weight each 1 pound.

EDGERS



Iron, nickel plated, hardwood handle.

Each

No. 1—6 in. long, 3 in. wide, $\frac{3}{8}$ in. radius\$1.20

No. 3—6 in. long, 3 in. wide, $\frac{3}{4}$ in. radius 1.30

No. 1A—With one square end, otherwise same as No. 1 1.20

No. 1B—6 in. long, $2\frac{1}{4}$ in. wide, $\frac{3}{8}$ in. radius with one square end... 1.20

Weight each $1\frac{1}{2}$ pounds.

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 2—8 in. long, $2\frac{1}{2}$ in. wide, $\frac{1}{2}$ in. radius; wt. each 2 lbs.....\$1.20

No. 2A—8 in. long, 3 in. wide, $\frac{3}{8}$ in. radius; wt. each $1\frac{1}{2}$ lbs..... 1.20

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 5—7 in. long, 3 in. wide, $\frac{3}{4}$ in. radius, $1\frac{1}{2}$ in. turned edge; wt. each $1\frac{1}{2}$ lbs.\$1.70

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 6B—6 in. long, $2\frac{3}{4}$ in. wide, $\frac{1}{2}$ in. bevel, used for bevel edges; wt. each $1\frac{1}{2}$ lbs.\$1.20

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 7A—6 in. long, $1\frac{1}{2}$ in. wide each $1\frac{1}{2}$ lbs.\$1.20

Two in a box.

CEMENT WORKERS' TOOLS

CURE EDGERS



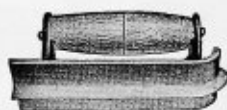
Iron, nickel plated, hardwood handle.

Each

No. 38—7 $\frac{1}{2}$ in. long, $3\frac{1}{2}$ in. wide, 2 in. turned edge, $\frac{1}{2}$ in. radius; wt. each $2\frac{1}{2}$ lbs.\$2.50

Two in a box.

JOINTERS



Iron, nickel plated, hardwood handle.

Each

No. 20—6 in. long, 3 in. wide, one end straight to cut joint in sharp corners, cuts thin groove $\frac{1}{2}$ in. deep for sidewalks; wt. each $1\frac{1}{4}$ lbs.\$1.20

No. 20B—6 in. long, $2\frac{1}{4}$ in. wide, cuts thin groove $\frac{1}{2}$ in. deep; wt. each $1\frac{1}{4}$ lbs. 1.20

No. 21—6 in. long, 3 in. wide, cuts heavy groove for driveway; wt. each $1\frac{1}{4}$ lbs. 1.30

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 22—6 in. long, 3 in. wide, cuts thin groove for sidewalks, $\frac{1}{2}$ in. deep; wt. each $1\frac{1}{4}$ lbs.....\$1.20

No. 22A—Cuts $\frac{1}{4}$ in. groove, otherwise same as No. 22 1.20

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 24—7 $\frac{3}{4}$ in. long, 2 in. wide, $\frac{3}{8}$ in. radius, cuts thin groove for sidewalks, $\frac{3}{8}$ in. deep; wt. each $1\frac{1}{4}$ lbs.\$1.20

Two in a box.



Iron, nickel plated, hardwood handle.

Each

No. 28—6 in. long, $4\frac{3}{4}$ in. wide, cuts thin groove $\frac{5}{8}$ in. deep; wt. each $1\frac{3}{4}$ lbs.\$2.00

Two in a box.

INSIDE SQUARE ANGLE



Iron, nickel plated, hardwood handle.

Each

No. 30 $\frac{1}{2}$ —6 in. long, $1\frac{1}{2}$ in. sides; wt. each $1\frac{1}{2}$ lbs.\$1.30

Two in a box.

OUTSIDE SQUARE ANGLE



Iron, nickel plated, hardwood handle.

Each

No. 31 $\frac{1}{2}$ —6 in. long, sides $1\frac{1}{2}$ in. high; wt. each $1\frac{1}{2}$ lbs.\$1.20

Two in a box.

OUTSIDE ROUND ANGLE



Iron, nickel plated, hardwood handle.

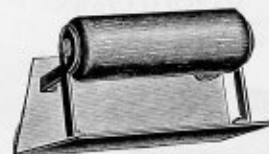
Each

No. 33—8 in. long, $2\frac{1}{4}$ in. sides, $\frac{3}{4}$ in. radius; wt. each $1\frac{1}{2}$ lbs.\$2.00

No. 33 $\frac{1}{2}$ —8 in. long, $2\frac{1}{4}$ in. sides, 2 in. radius; wt. each $1\frac{3}{4}$ lbs... 2.50

Two in a box.

CORNER TROWELS



Inside Square Corner 88° Angle

Polished steel, black mounting. Mortised hardwood handle.

Per dozen

No. 65—6 in. long, $2\frac{1}{2}$ in. sides; wt. per dozen 10 lbs\$12.00

One-half dozen in a box.



Outside Square Corner 92° Angle

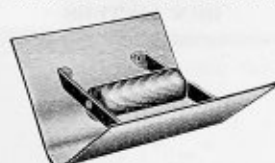
Polished steel, black mounting, mortised hardwood handle.

Per dozen

No. 67—6 in. long, $2\frac{1}{2}$ in. sides; wt. per dozen 9 lbs.\$12.00

One-half dozen in a box.

CEMENT BASE TOOLS



Polished steel, black mounting, mortised hardwood handle.

Per dozen
No. 108—8 in. long, 6 in. sides; 1 in. radius; wt. per dozen 31 lbs...\$42.00
Open stock.

BEADING TOOLS



Double end concave, iron, nickel plated, two sizes in one, making half round beads. 6 3/4 inches long.

Nos.	Per dozen	Size of bead, inches	Wt. doz., lbs.
2	\$3.00	1/8 and 1/4	2 1/2
3	3.00	1/4 and 3/8	3
4	4.00	3/8 and 1/2	3 1/4
5	4.00	1/2 and 3/4	4

One dozen in a box.



For Stripped Joints

Polished steel, both ends flat.

Per dozen
No. 602—For 1/8 in. joints; wt. per dozen 4 lbs...\$6.00
One-half dozen in a box.

BRICKLAYERS' JOINTERS JOHNSON



Forged steel, black finish, polished ends.

Per dozen
No. 200—1/8 in. thick one end, 3/8 in. thick at other end; wt. per dozen 6 1/4 lbs...\$7.50
One dozen in a box.

ROSE

Forged steel, black finish, flat ends.

Per dozen
No. 5834—5/8 x 3/4 in.; wt. per dozen 10 lbs...\$12.00
Open stock.

MARSHALLTOWN



For Rodded Joints

Polished steel, both ends round.

Per dozen
No. 302—8 in. long, 5/8 in. at center, tapering to 1/8 in. at both ends; wt. per dozen 4 lbs...\$6.00
One-half dozen in a box.

BRICKLAYERS' JOINTERS MARSHALLTOWN



For "V" and Rodded Joints

Polished steel, one end diamond-shaped and one end round.

Per dozen
No. 402—8 in. long, 3/4 in. at center, tapering to 1/8 in. at both ends; wt. per dozen 4 lbs...\$6.00
One-half dozen in a box.

STEEL HODS STANDARD BRICK



Sheet steel; turned edges, pressed steel socket fork and wooden shoulder saddle; socket has bolt clasp to hold wood

handle secure; reinforced on edges and at dumping point; riveted back with steel legs at end for support when filling and to protect head; 42 in. handle.

Each
No. 162—22x10x7 in. heavily coated with red waterproof paint; wt. per dozen 80 lbs...\$2.00
Open stock.

NEVERDRIP MORTAR



Sheet steel; edges reinforced with heavy rods; pressed gauge steel fork; fork has socket bolt clasp to hold wood handle secure; reinforced dumping end; wood shoulder saddle; 42 in. handle.

Each
No. 158—26x12x11 1/2 in.; heavily coated with red waterproof paint; wt. per dozen 135 lbs...\$2.50
Open stock.

BRICK CLAMPS



Adjustable

Malleable iron, lever clamp insures secure hold and quick operation. Insure correct count. A convenient tool for handling eight bricks or more at a time.

Each
No. 201—Will hold 8 to 12 bricks; wt. each 6 lbs...\$2.50
Open stock.

TAMPERS

CAST IRON With Gas Pipe Handle

Cast in one solid piece, japanned, for general use in tamping dirt, cinders, etc. Particularly adapted for cement workers' use.

Particular attention is called to the advantage of the gas pipe handles over the old style wood handles as they eliminate breakage and are much more convenient to use.



No. 92A



No. 93A

No. 92A—Round

Size	2	3	4
Diam. face, in.	5	6	6
Wt. each, lbs.	19	24	34
Each	\$2.30	2.90	4.10

No. 93A—Square

Size	5	6
Face, in.	6x6	8x8
Wt. each, lbs.	16	21
Each	\$2.00	2.50

MOULDERS' BELLOWS



No. 100—Leather Covered

Straight grain lumber, steel hinge, heavy galvanized iron nozzle.

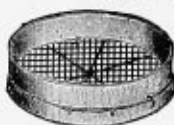
Size, in.	Per doz.	Wt. doz., lbs.	Size, in.	Per doz.	Wt. doz., lbs.
8	\$28.00	30	12	\$48.00	50
9	32.00	35	14	56.00	60
10	36.00	40	16	62.00	70

Open stock.

FOUNDRY RIDDLES

18 in. Diameter

Heavy wood rims reinforced with heavy cross bars, extra heavy wire manufactured with care.



No. 20—Steel

Mesh	Per doz.
2	\$16.00
3	16.00
4	16.00
5	16.00
6	16.00
8	16.00
10	16.00
12	16.00
14	16.00
16	16.00
18	16.00

No. 40—Brass

Mesh	Per doz.
2	\$39.00
3	30.00
4	30.00
5	30.00
6	30.00
8	30.00
10	30.00
12	30.00
14	30.00
16	30.00
18	30.00

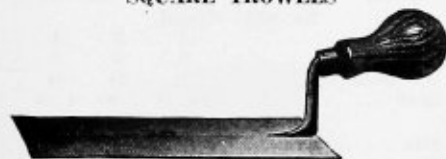
Per dozen
No. 30—Galvanized; wt. dozen 50 lbs...\$18.00
One-half dozen in a crate.

No. 1 FINISHING TROWELS



Size, in.	Each	Wt., oz.	Size, in.	Each	Wt., oz.
6 x 1 1/4	\$0.80	4 1/2	6 1/2 x 1 1/4	\$1.05	6
6 x 1 1/2	.90	5	7 x 1 1/2	1.05	5 1/2
6 1/2 x 1 1/2	.95	5 1/4	7 x 1 1/4	1.15	6 1/2
6 x 1 3/4	1.00	6			

SQUARE TROWELS



Size, in.	Each	Wt., oz.	Size, in.	Each	Wt., oz.
6 x 1 1/4	\$0.80	5	6 x 2	\$1.10	6 1/2
6 x 1 1/2	.90	5	6 1/2 x 2	1.15	6 1/2
6 1/2 x 1 1/2	.95	5 1/4	7 x 2	1.25	...
7 x 1 1/2	1.05	5 1/2			

GATE CUTTERS AND SPOONS



Width, in.	Each	Wt., oz.	Width, in.	Each	Wt., oz.
1	\$0.60	1 1/2			
1 1/4	.70	1 3/4			
1 1/2	.80	2 1/2			

BENCH LIFTERS



Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
7/8	\$0.40	3/4	1 1/2	\$0.60	1
1/4	.45	1/2	1 3/4	.65	1 1/4
3/8	.55	5/8	2	.70	1 1/2

No. 13

Width, in.	Each	Wt., oz.	Width, in.	Each	Wt., oz.
7/8	\$0.50	3/4			
1/4	.55	5/8			
1 1/8	.60	7/8			

BENT BENCH LIFTERS



Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
3/8	\$0.55	5/8	3/4	\$0.65	1 1/4
1/2	.60	1	1 1/4	.70	1 3/4

All above, open stock.

MOULDERS' TOOLS

DOUBLE SQUARES



No. 37

Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
1 1/2	\$0.60	3/4	3 1/4	\$0.70	1 3/8
3/8	.65	1 1/8	1	.75	1 5/8

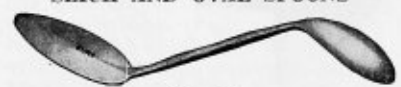
TAPER AND SQUARE SPOONS



No. 28

Width, in.	Each	Wt., oz.	Width, in.	Each	Wt., oz.
1	\$0.65	1			
1 1/4	.75	1 3/8			
1 1/2	.85	1 5/8			

SLICK AND OVAL SPOONS



No. 29

Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
3/4	\$0.60	1	1 1/4	\$0.75	1 3/8
1	.65	1 1/8	1 1/2	.85	2 1/2

HEART AND SQUARE SPOONS



No. 30

Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
1	\$0.60	1 1/4	1 1/2	\$0.80	2 1/4
1 1/4	.70	1 5/8	1 3/4	.90	2 1/2

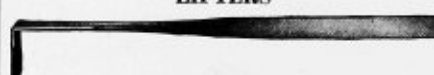
HEART AND OVAL SPOONS



No. 31

Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
1	\$0.60	1 1/4	1 1/2	\$0.80	2 1/4
1 1/4	.70	1 5/8	1 3/4	.90	2 1/2

LIFTERS

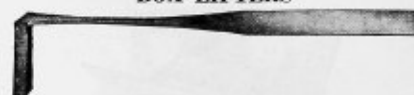


No. 42

Size, in.	Each	Wt., oz.	Size, in.	Each	Wt., oz.
3/8 x 10	\$0.60	1 1/4	3/8 x 20	\$0.90	4
3/8 x 12	.65	1 1/2	3/8 x 12	.75	2 1/4
3/8 x 14	.70	1 3/4	3/8 x 14	.80	3 1/8
3/8 x 16	.75	2 1/4	3/8 x 16	.85	3 3/4
3/8 x 18	.80	2 5/8	3/8 x 18	.90	4 1/4
3/8 x 20	.85	3 1/8	3/8 x 20	.95	5 1/4
1/2 x 10	.65	1 5/8	1/2 x 12	.80	3 3/4
1/2 x 12	.70	1 7/8	1/2 x 14	.85	3 3/4
1/2 x 14	.75	2 3/8	1/2 x 16	.90	4 1/2
1/2 x 16	.80	3 1/4	1/2 x 18	.95	5 1/8
1/2 x 18	.85	3 5/8	1/2 x 20	1.00	5 3/4

All above, open stock.

BOX LIFTERS



No. 48

Size, in.	Each	Wt., oz.	Size, in.	Each	Wt., oz.
5/8 x 14	\$1.20	5	3/4 x 16	\$1.30	5 3/4
5/8 x 16	1.25	5 1/2	3/4 x 18	1.35	6 1/4

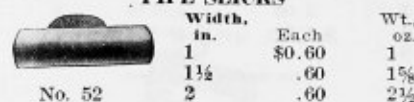
FLAT AND CIRCULAR FLANGES



No. 50

Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
1 1/2	\$1.00	4 1/8	3/4	\$1.20	6
5/8	1.10	5	1	1.40	7

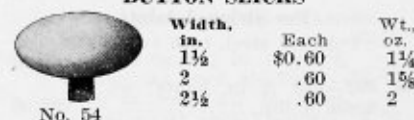
PIPE SLICKS



No. 52

Width, in.	Each	Wt., oz.
1	\$0.60	1
1 1/2	.60	1 1/8
2	.60	2 1/2

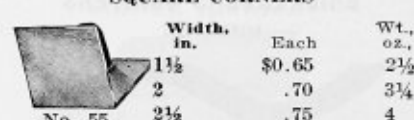
BUTTON SLICKS



No. 54

Width, in.	Each	Wt., oz.
1 1/2	\$0.60	1 1/4
2	.60	1 5/8
2 1/2	.60	2

SQUARE CORNERS



No. 55

Width, in.	Each	Wt., oz.
1 1/2	\$0.65	2 1/2
2	.70	3 1/4
2 1/2	.75	4

INSIDE SQUARE CORNERS



No. 56

Width, in.	Each	Wt., oz.
2	\$0.85	2 3/4
2 1/2	.90	3 3/4

HALF ROUND CORNERS



No. 57

Wth., in.	Each	Wt., oz.	Wth., in.	Each	Wt., oz.
1	\$0.60	1 1/4	1 1/2	\$0.70	2 1/4
1 1/4	.65	2	2	.75	3 3/8

All above, open stock.

TOOL CLASPS FORG



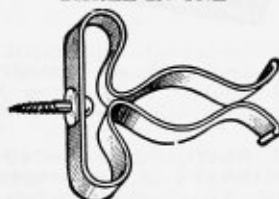
Spring Brass

For holding tools and other articles for store display cases, for tool cabinets and for household purposes.

Nos.	Per dozen	Size clasp, in.	Lgth., in.	Wt. gross, lbs.
235	\$0.60	5/8	1 1/8	1 1/2
236	.70	7/8	1 3/8	2
237	1.00	1 1/8	1 3/4	2 1/2

Nos. 235 and 236, one gross; No. 237, one-half gross in a box.

THREE IN ONE



Spring Steel

Made with gimlet pointed square shouldered screw that will not loosen. The loops form a handle like a gimlet, so that holder is easily screwed into place. The main clasp holds regular size articles, the two loops are for holding small items.

Per dozen

3 in 1—In display box.....\$1.20

One dozen in a box.

FINGER GRIP



Adjustable

For holding tools, m o p s, brooms, garden tools, etc. For workshop, stores or homes. Special screw and base plate. The adjusting screw permits the steel fingers

to be opened or closed.

Per dozen

No. 2—Nickel plated, for tools from 5/8 to 1 1/4 in.; wt. per box 2 1/4 lbs.\$1.20

Two dozen in a box.

FOR FIVE TOOLS OR UTENSILS



Five finger grip clips mounted on hard-wood base.

Per dozen

No. 5—Nickel plated; wt. per doz. 3 1/2 lbs.\$3.00

One dozen in a display box.

TOOL BAGS MASON'S



No. 225—Heavy White Duck

Double thick bottom with heavy straw board filling, lock stitched double, 12 gauge steel frame, riveted steel bottom, studs complete with lock and key, leather handles.

Lgth., in.	Each	Height, in.	Width, bottom, in.	Wt. each, lbs.
16	\$4.00	13	5 1/2	2 1/2
18	4.25	15 1/2	5 1/2	3
20	4.50	15 1/2	5 1/2	3 1/2
22	4.75	15 1/2	5 1/2	4
24	5.00	15 1/2	5 1/2	4 1/4

Open stock.

ELECTRICIANS'



No. 345—Genuine Cowhide Leather

Two leather shoulder straps, pad and handle and saw or bit holder straps, bottom is three-ply and equipped with steel studs.

Retaining straps pass clear around the bag, black finish.

Lgth., in.	Each	Height, in.	Width, in.	Wt. each, lbs.
18	\$10.50	7	8	5 1/2
20	11.00	7	8	6
22	12.00	7	8	6 1/2

Open stock.

CARPENTERS' APRONS



With Five Pockets

Per dozen

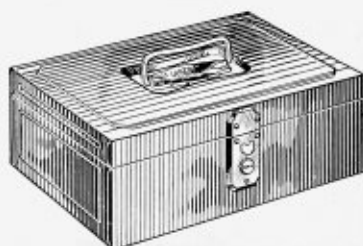
No. 178—8 oz. white duck.....\$6.00

No. 148—8 oz. brown duck..... 6.50

Weight per dozen 4 pounds.

One dozen in a bundle.

CASH BOXES UTILCO



Heavy gauge cold rolled steel, green enameled, equipped with lock and two keys, top handle.

Each

No. 1011—10 3/4 x 7 1/2 x 4 1/4 in.; wt. each 3 lbs.\$1.25

Open stock.



Detachable Automatic Tray

Heavy gauge cold rolled steel, green enameled, equipped with lock and two keys, top handle. Patent two-section tray with four movable partitions.

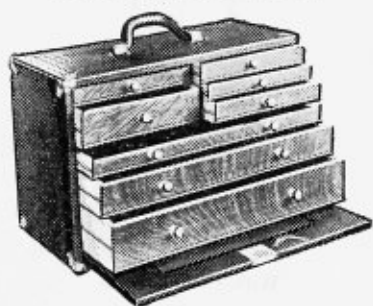
Each

No. 1111—10 3/4 x 7 1/2 x 4 1/4 in.; wt. each 3 1/2 lbs.\$1.50

One in a box.

TOOL CHESTS

GERSTNER MACHINISTS'



Quarter sawed oak, self-hinging lid with felt lined tray to lay tools on, or can be slid under bottom drawer, metal bottom drawers felt lined, nickel plated trimmings, cylinder locks with two flat keys. Comfortable leather handle.

Each

No. 031B—20x11½x8½ in., short drawers 8½x6¼ in., long drawers 18½x6¼ in. inside, 1 to 2½ in. deep; wt. each 27 lbs. \$15.50

GERSTNER MACHINISTS'



Quarter sawed oak, self-hinged front lid swings up and locks automatically with a patent device, mirror in lid, top till and drawers felt lined, nickel plated trimmings, cylinder lock with two flat keys, comfortable leather handle.

Each

No. 041B—20x12¼x8½ in. top compartment, 19x7½x3¼ in. short drawers, 8½x6¼ in. long drawers, 18½x6¼ in. inside, 1 to 1¾ in. deep; wt. each 30 lbs. \$19.00

LUFKIN MACHINISTS'



Quarter sawed oak, well finished. Heavy nickel plated trimmings, strong leather covered handles. Metal bottom drawers with green felt lining. Lock and two keys.

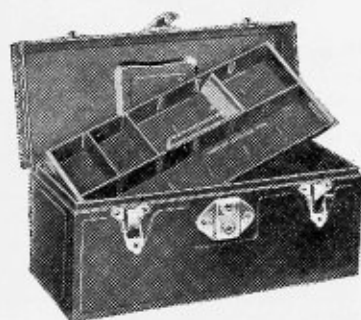
Each

No. 381—20x12½x9¼ in. over all; 18½x8½x3¼ in. top compartment; 8½ in. short drawers; 18½ in. long drawers; all drawers 7½ in. deep; wt. each 33 lbs. \$21.00

TOOL BOXES

UTILCO

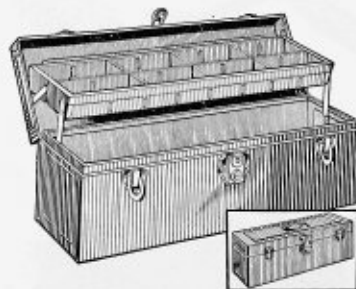
UTILCO



Heavy gauge cold rolled steel, green enameled, equipped with lock and two keys, and two catches, top handle, patent tray with movable partitions, embossed rule on cover.

Each

No. 4114—14x6½x6 in.; wt. each 3¼ lbs. \$1.25



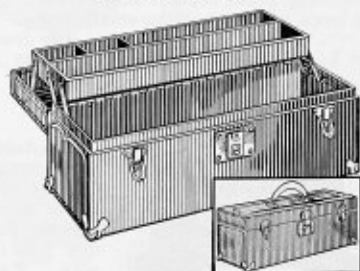
With Automatic Tray

Heavy gauge cold rolled steel, green enameled, equipped with lock and two keys, two catches, top handle and tray with movable partitions, embossed rule on cover.

Each

No. 4319—19x6½x6 in.; wt. each 5 lbs. \$1.50

UNION UTILITY

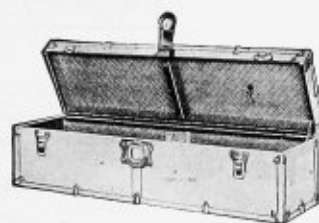


Automatic Cantilever Tray

Heavy gauge cold rolled steel stock, olive green baked-on enamel finish, heavy brass plated hardware, continuous type hinge, corner reinforcements, two bolt catches, lock with two keys, paneled ends and cover leather handle with steel core.

Nos.	Each	Size, in.	Wt., lbs.
6316	\$3.00	16x7x7	8
6319	3.50	19x7x7	9½
6322	5.00	22x8x9	12½

CARPENTERS' SHOULDER



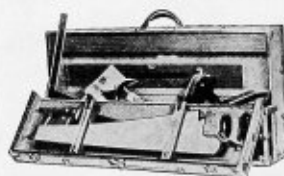
Three-ply reinforced construction, steel covered, all assemblies completely riveted, baked black crystal finish, nickel plated hardware, leather covered handle with steel reinforcement, fitted with trunk lock and two draw bolt catches. Brackets for three saws.

Each

No. 70—30 in. long, 8 in. wide, 8 in. high; wt. each 14 lbs. \$6.50

All above, open stock.

CARPENTERS' SUITCASE STYLE

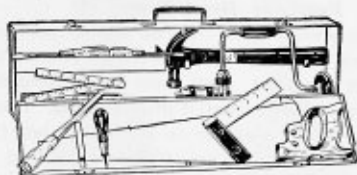


Three-ply reinforced construction, steel covered, all assemblies completely riveted, baked black crystal finish, nickel plated hardware, leather covered handle with steel reinforcement, complete with lock, draw bolt catches, full length tray, level and saw brackets, will accommodate 2 foot steel square, no tools are included, they are used for illustration.

Each

No. 90—32 in. long, 16 in. high, 7 in. wide; wt. each 20 lbs. \$10.00

TOOL SETS STANLEY



Green lacquered steel case, with suit case catches and carrying handle with hooks for tools.

Each

No. 882A—10 tools in case, 24 $\frac{3}{4}$ x 7x3 $\frac{1}{2}$ in., wt. 14 lbs.\$6.50

Contents of No. 882A Tool Set

- 1 Bradawl
- 1 Bit brace, 10 in., No. 1253
- 1 Zig Zag rule, 6 ft., No. 86
- 1 Try square, 6 in., No. 1280
- 1 Screw driver, 4 in., No. 1270
- 1 Screw driver, 3 in., No. 1270
- 1 Chisel, $\frac{1}{2}$ in., No. 1251
- 1 Hand saw, 20 in.
- 1 Hammer, 16 oz., No. 211 $\frac{1}{2}$
- 1 Block plane, 6 $\frac{1}{2}$ in. long, No. 1248A



Green lacquered steel case with suit case catches and carrying handle, also provided with hooks for holding tools.

Each

No. 882AB—15 tools in case, 24 $\frac{3}{4}$ x 7x3 $\frac{1}{2}$ in.; wt. 16 lbs.\$9.00

Contents of No. 882AB Tool Set

- 1 Hand saw, 20 in.
- 1 Bit brace, 10 in., No. 1253
- 1 Hammer, 16 oz., No. 211 $\frac{1}{2}$
- 1 Plane, 6 $\frac{1}{2}$ in., No. 1248A
- 1 Screw driver, 6 in., No. 1270
- 1 Zig Zag rule, 6 ft., No. 86
- 1 Chisel, $\frac{1}{2}$ in., No. 1251
- 1 Chisel, $\frac{3}{4}$ in., No. 1251
- 1 Chisel, 1 in., No. 1251
- 1 Auger bit, $\frac{1}{2}$ in.
- 1 Auger bit, $\frac{5}{8}$ in.
- 1 Auger bit, $\frac{3}{4}$ in.
- 1 Square, 6 in., No. 1280
- 1 Carpenters' pencil, 7 in.
- 1 Pair combination pliers, 6 $\frac{1}{2}$ in.

TOOL SETS STANLEY



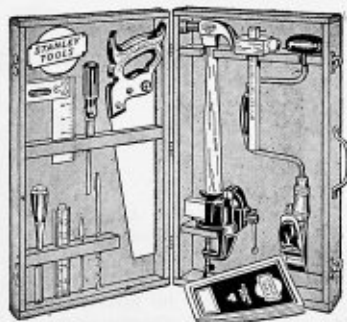
Green finished oak case, with hinges, catches and carrying handle.

Each

No. 903—17 tools in case 11 $\frac{3}{4}$ x 4 $\frac{1}{2}$ x 21 $\frac{1}{2}$ in.; wt. each 20 lbs.\$22.00

Contents of No. 903 Tool Set

- | | |
|------------------------------------|--------------------------|
| 1—13 oz. hammer | 1—8 in. ratchet brace |
| 1—3 in. screwdriver | 1— $\frac{1}{4}$ in. bit |
| 1—5 in. screwdriver | 1— $\frac{3}{8}$ in. bit |
| 1—4 ft. rule | 1—Gimlet bit |
| 1—16 in. saw | 1—Screwdriver bit |
| 1—7 $\frac{1}{2}$ in. mitre square | 1—Awl |
| 1—Marking gage | 1—Vise |
| 1—7 in. block plane | 1—Package wiggle nails |
| 1— $\frac{1}{4}$ in. chisel | 1—Bench plan |
| 1— $\frac{3}{4}$ in. chisel | 1 sixteen plan book. |



Green finished oak case, with hinges, catches and carrying handle.

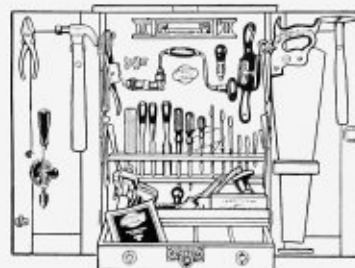
Each

No. 904—12 tools in case 11 $\frac{3}{4}$ x 4 $\frac{1}{2}$ x 21 $\frac{1}{2}$ in.; wt. each 17 lbs.\$16.00

Contents of No. 904 Tool Set

- 1—10 oz. hammer
- 1—4 in. screwdriver
- 1—2 ft. rule
- 1—14 in. saw
- 1—4 $\frac{1}{2}$ in. try square
- 1—No. 61 marking gage
- 1—5 $\frac{1}{2}$ in. block plane
- 1— $\frac{1}{2}$ in. chisel
- 1—8 in. brace
- 1—Each $\frac{1}{4}$ and $\frac{3}{8}$ in. bit
- 1—Bench vise
- 1—Package wiggle nails
- 1—Bench plan

TOOL SETS STANLEY



Equipped with Stanley High Grade Tools
Stained and varnished oak case, panelled door equipped with brass lock. Has a drawer for holding small tools, nails, etc.

Each

No. 851—33 tools in case 26 $\frac{3}{4}$ x 19 $\frac{1}{2}$ x 8 $\frac{1}{2}$ in.; wt. 52 lbs.; shipping wt. each 80 lbs.\$65.00

Contents of No. 851 Tool Set

- 1 Hammer, 13 oz., No. 52
- 1 Hammer, 4 oz., No. 147
- 1 Saw (hand), 20 in.
- 1 Saw (coping) with 12 extra blades
- 1 Screw driver, 5 in., No. 20
- 1 Screw driver, 4 in., No. 40
- 1 Screw driver, 3 in., No. 50
- 1 Hand drill No. 1219 with drill points
- 1 Rule (Zig Zag), 5 ft., No. 105
- 1 Plane (bench), 11 $\frac{1}{2}$ in., No. 5 $\frac{1}{4}$
- 1 Plane (block), 6 in., No. 60
- 1 Scraper No. 80
- 1 Bit brace, 8 in., No. 915
- 1 Auger bit, $\frac{1}{4}$ in.
- 1 Auger bit, $\frac{3}{8}$ in.
- 1 Auger bit, $\frac{1}{2}$ in.
- 1 Gimlet bit No. 6
- 1 Screw driver bit, $\frac{5}{8}$ in., No. 26
- 1 Bit gage, No. 49
- 1 Chisel, $\frac{1}{4}$ in., No. 40
- 1 Chisel, $\frac{1}{2}$ in., No. 40
- 1 Chisel, 1 in., No. 40
- 1 Cold chisel, $\frac{1}{2}$ in., No. 1A
- 1 Vise, 1 $\frac{1}{2}$ in. jaws, No. 707
- 1 Gage (marking and mortise) No. 98
- 1 Combination square, 9 in., No. 21
- 1 Bevel, 8 in., No. 25
- 1 Spoke shave, No. 151
- 1 Plumb and level, 12 in., No. 36G
- 1 Nail set, 2/32 in., No. 11
- 1 Hollow handle tool set No. 305
- 1 Pair pliers
- 1 Carborundum stone No. 109
- 1 Package wiggle nails
- 1 Plan "How to Make a Work Bench"

A Set of Stanley Tools Makes an Ideal Gift:

For the Boy—To help him develop his creative ability, supplement his school manual training and start him on a fascinating hobby.

For the Newlyweds—Whether they begin their married life in an apartment or a home of their own, they will find continuous use for a set of tools.

For the Man of the Home—Providing a means of saving time and money on those endless little repair jobs.

For the Hobbyist—If his hobby is wood-working, nothing will please him more than a set of real Stanley Tools.

JACKS

DUFF GENUINE BARRETT



Trip or Track; Single Action

These jacks are of suspended pawl type, which eliminates the use of a separate tripping device, the lower or short pawl serving as such.

The upper or holding pawl has a spring attached, which automatically forces it into position, leaving the lower or lifting pawl free for tripping.

All parts are interchangeable, except base and lifting rack.

Furnished with square socket, for use with lining bar or crow bar.

Nos.	117	217	517	617
Capacity, tons	15	15	15	15
Height, in.	22	16½	11	28
Raise, in.	13	7½	5	19
Wt. each, lbs.	60	52	40	75
Each	\$21.00	19.00	19.00	27.00

Open stock.

Note—Can be furnished with round socket and wood operating lever at an additional cost of \$1.00.



Automatic Lowering Single Socket

Careful observation and tests of the performance of these jacks under actual service conditions, prove that they are unexcelled in safety, low maintenance cost, and in easy and convenient operation.

Very widely used by industrial concerns, telephone and telegraph companies, street railway companies, steam railroads, mines, mills, contractors, truck men, etc.

Completely enclosed oil-tempered spring actuated mechanism. All working parts are fully enclosed and protected from dirt.

Simplified inside mechanism eliminates all machine screws and loose pieces. Furnished with four foot steel operating bar.

Nos.	1522	1528	2028
Capacity, tons	15	15	20
Height, in.	22	28	28
Raise, in.	12½	18	18
Wt. each, lbs.	78	91	94
Each	\$38.00	40.00	45.00

Open stock.

Note—Can be furnished with double socket if specified.



Automatic Lowering Double Socket

Unexcelled in safety, low maintenance cost and is easy and convenient in operation.

Double socket lever aids effective operation in close and cramped quarters.

Very widely used by industrial concerns, telephone and telegraph companies, street railway companies, steam railroads, mines, mills, contractors, truck men, etc.

Completely enclosed oil-tempered spring actuated mechanism. All working parts are fully enclosed and protected from dirt. Simplified inside mechanism eliminates all machine screws and loose pieces.

Furnished with four foot steel operating bar.

No. 1022—10 ton capacity; 22 in. high; 12½ in. raise; wt. each 60 lbs.	\$25.00
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Open stock.

JACK SCREWS

SIMPLEX BALL BEARING



Four-way Head Type

Molybdenum steel ball in top of screw increases power, reduces friction and prevents jack from twisting under the load. Ball rests on a hardened steel plate. Cap is heat treated drop forging. Hand hole in base enables operator to see how high the load can be safely lifted. Each jack is lacquered in attractive colors; different color for each diameter screw.

Size, in.	Height closed, in.	Rise of screw, in.	Cap. to lift, tons	Weight each, lbs.	Each
1¼x6	10	4	10	10	\$3.10
1¼x8	12	6	10	12	3.40
1¼x10	14	8	10	15	3.80
1¼x12	16	10	10	18	4.20
1½x6	10½	3¾	12	10	3.75
1½x8	12½	5¾	12	14	4.25
1½x10	14½	7¾	12	17	4.75
1½x12	16½	9¾	12	21	5.25
1½x14	18½	11¾	12	26	6.00
1½x6	10½	3¾	16	17	4.50
1½x8	12½	5¾	16	18	5.00
1½x10	14½	7¾	16	22	5.75
1½x12	16½	9¾	16	26	6.25
1½x14	18½	11¾	16	30	6.75
1½x16	20½	13¾	16	36	7.50
2x6	10½	3	20	21	5.25
2x8	12½	5	20	22	6.00
2x10	14½	7	20	25	6.75
2x12	16½	9	20	30	7.50
2x14	18½	11	20	36	8.25
2x16	20½	13	20	39	9.25
2x18	22½	15	20	44	10.25

Open stock.

TRENCH BRACES

DUFF EXTENSIBLE STEEL

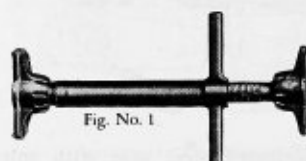


Fig. No. 1

Adaptable to every type of bracing and shoring job in wide, narrow, deep or shallow trenches or excavations.

The ball and socket joint at each end permit easy adjustment to any angle. Lug on the face of each hold firmly, cannot slip or be jarred out of place. Adaptable to any width trench by using shorter or longer lengths of standard black pipe. Furnished regularly with drop-forged lever nut; 3-way nut for pinch bar use furnished on request.

Nos.	Pipe & Screw diameter, in.	Length brace closed, in.	Length screw, in.	Safe Ext., in.	Wt. doz., lbs.	Per dozen
1001	1½	16	10	6	180	\$46.00
1002	1½	18	12	7	200	46.00
1003	1½	21	14	8	212	48.00
1004	1½	24	14	8	221	48.00
1005	1½	27	16	9	240	52.00
1006	1½	30	16	9	247	52.00
1007	1½	36	18	10	273	54.00
1008	1½	42	18	10	300	56.00
1009	1½	48	18	10	325	58.00
1011	2	36	18	10	538	102.00
1012	2	42	18	10	564	104.00
1013	2	48	18	10	580	106.00
1014	2	54	18	10	608	108.00
1015	2	60	18	10	630	110.00

Open stock.

TACKLE BLOCKS

"ANVIL BRAND", WOOD, FOR MANILA ROPE



Single



Double



Triple

With BecketNo. 26

No. 27

No. 28

Without BecketNo. 21

No. 22

No. 23

Iron Bushed

Wood shell, iron sheaves, regular inside iron strapped. Loose side hooks. Furnished with or without becket.

Length shell, in.	For diam. rope, in.	Size sheave, in.	Single Each	Double Each	Triple Each
3	3/8	1 1/4 x 1 1/2 x 3/8	\$0.70	\$1.30	\$1.75
4	1/2	2 1/4 x 2 1/2 x 3/8	.85	1.60	2.15
5	5/8	3 x 3 1/4 x 3/8	.90	1.75	2.25
6	3/4	3 1/2 x 1 x 1 1/2	1.10	2.00	2.90
7	7/8	4 1/4 x 1 x 1 1/2	1.30	2.40	3.50
8	1	4 3/4 x 1 1/8 x 3/8	1.65	2.85	4.25
9	1	5 1/2 x 1 1/8 x 3/8	1.85	3.40	4.75
10	1 1/8	6 1/4 x 1 1/4 x 3/8	2.75	4.50	6.25
12	1 1/4	8 x 1 3/8 x 3/4	4.45	7.50	10.65
14	1 3/8	9 1/2 x 1 5/8 x 3/4	7.00	10.50	15.00

Open stock.

"U-W" CLEVELAND MALLEABLE, FOR MANILA ROPE



No. B-91
Single



No. B-92
Double



No. B-93
Triple

Plain Bore

Malleable iron shell, iron sheaves, steel pins and straps. Loose side hooks. All japanned finish. With or without becket.

Length shell, in.	For diam. rope, in.	Size sheave, in.	No. B-91 Single Each	No. B-92 Double Each	No. B-93 Triple Each
4	1/4	2 1/4 x 3/8 x 3/8	\$1.30	\$1.85	\$2.60
5	5/8	2 3/4 x 7/8 x 1/2	1.65	2.50	3.30
6	3/4	3 1/2 x 1 x 1 1/2	2.00	3.10	4.20
7	7/8	4 1/4 x 1 1/8 x 3/8	2.65	4.10	6.00
8	1	5 x 1 1/4 x 3/8	3.25	5.40	7.40
10	1 1/4	6 1/4 x 1 3/8 x 3/4	5.50	9.00	12.00
12	1 1/2	7 1/2 x 1 3/4 x 3/4	8.40	13.70	19.80
14	1 3/4	8 1/2 x 2 x 1	15.50	28.00	38.50

Open stock.

SNATCH BLOCKS

"ANVIL BRAND", WOOD SHELL

Drop Link, Iron Bushed, For Manila Rope

Drop forged head and flattened swivel hook. Straps extend to bottom of shell. Shells are double cross bolted and edges of shells are rounded.

No. 385



Lgth. shell, in.	For diam. rope, in.	Size sheave, in.	Wt. each, lbs.	Each
6	7/8	3 x 1 1/4 x 1 1/2	6	\$4.00
8	1	4 1/2 x 1 3/8 x 3/4	12	5.75
10	1 1/4	5 3/4 x 1 7/8 x 3/4	22	8.50
12	1 1/2	6 3/4 x 2 1/8 x 3/4	31	10.00
14	1 3/4	8 x 2 1/4 x 3/4	41	13.00

Open stock.

"U-W" CLEVELAND, MALLEABLE

Automatic, Plain Bore, For Manila Rope

Malleable iron head and reinforced hook.

No. B-261



Lgth. shell, in.	For diam. rope, in.	Size sheave, in.	Wt. each, lbs.	Each
7	7/8	3 1/2 x 1 1/4 x 1 1/2	7 3/8	\$5.50
8	1 - 1 1/4	4 1/2 x 1 3/8 x 3/4	11 1/4	6.50
10	1 1/4 - 1 3/8	5 1/2 x 1 7/8 x 3/4	21 5/8	10.00
12	1 1/2 - 1 5/8	7 x 2 x 1	29	12.50
14	1 3/4 - 1 7/8	8 x 2 1/4 x 1 1/4	41	16.00
16	2 - 2 1/4	9 x 2 3/8 x 1 1/4	70	21.00

Open stock.

HOOKS AND THIMBLES

"U-W"

Drop Forged Steel, Galvanized

Round stock side hooks with Manila rope thimble.

No. 227



Size, in.	Length hook, in.	Inside diam. eye, in.	For diam. rope, in.	Wt. per 100 lbs.	Each
1/4	2	1/2	3/8	7	\$0.20
5/16	2 3/8	5/8	7/8	10	.22
3/8	2 7/8	3/4	1 1/2	19	.24
1/2	3 1/2	7/8	2	29	.28
5/8	4 1/4	1 1/8	2 1/2	55	.40
3/4	5 3/8	1 3/8	3	94	.50
7/8	5 3/4	1 1/2	1	140	.90

Open stock.

STEEL PLATE TROLLEYS

YALE PLAIN

Roller Bearing

Strong and flexible in design. Built with steel suspension members.

The bearings are Hyatt Roller and of ample capacity.

The trolley sides are heavy rolled steel plates and extend beyond the wheel flange, providing a bumper. The side plates are reinforced by heavy separator castings at the bottom and the two sides connected by the equalizing pin. Clevis is drop-forged steel.



Axles are of carbon steel, of ample size, hardened and ground to a tolerance of .0005 inches.

Lubrication is by Alemite-Zerk high-pressure fitting, mounted in the wheel hub and feeding directly to the Hyatt Bearings.

Capacity, Tons	1/2	1	1 1/2	2
Adj. for 1-beam, in.	5, 6, 7, 8	6, 7, 8, 9	7, 8, 9, 10	8, 9, 10, 12
Greatest dist. betw. supports, ft.	14	14	15	16
Diameter of tread of wheels, in.	3 3/4	4 3/4	5 1/2	6 1/2
Min. curve radius, in.	21	21	30	36
Wt. each, lbs.	27	43	72	93
Each	\$30.00	35.00	45.00	58.00

Open stock.

CHAIN HOISTS

YALE BALL BEARING SPUR GEARED BLOCK

Design and construction contemplates maximum in safety, high lifting capacity and speed with minimum of hand chain pull and overhaul uniformly low headroom and over all dimensions; minimum of weight consistent with strength and safety.

Gears are mounted on bronze anti-friction bearings, oil duct lubrication. All members in suspension are steel. Load brake is screw and disc type, self-actuating, of ample area, with the ratio of brake pressure increasing in proportion to the increase in load. Load sheave is mounted on two ball bearings, radial thrust type, using high carbon chrome alloy steel balls and chrome vanadium races.

Formed, welded, heat-treated steel chain. Drop-forged steel safety load hook. Drop-forged two-piece shackles. Hand chain guide. All parts fully tested and inspected.



Cap. Tons	Lift. ft.	Chain pull, lbs.	Chain pull, ft.	Wt. each, lbs.	Complete each	Extra Lift per ft.
1/2	8	57	21	61	\$ 70.00	\$ 1.80
1	8	76	31	94	90.00	1.90
1 1/2	8	103	35	136	120.00	2.00
2	9	112	42	204	140.00	2.10
3	10	107	70	212	180.00	3.00
4	10	116	84	301	220.00	3.20
5	12	102	126	413	280.00	4.30
6	12	122	126	413	330.00	4.30
8	12	127	168	502	400.00	5.40
10	12	132	210	612	480.00	6.50
12	12	122	1126	860	600.00	8.60
16	12	127	1168	1046	720.00	10.80
20	12	132	1210	1230	850.00	13.00

†Figures denote the pull in pounds required to lift the full load, and number of feet chain overhauled to lift the load one foot.

†For each hand chain.

YALE DIFFERENTIAL

Design and construction contemplates maximum in safety; high lifting capacity with a minimum of hand chain pull and overhaul; minimum of weight consistent with strength and safety.

Drop-forged steel safety load hooks. These hooks will open slowly without fracture under severe overload. This provides warning of danger and permits depositing the load without injury to operator, to the load or to the hoist mechanism.

Formed, welded, heat-treated, tumbled and gaged steel chain.

All parts are fully tested and inspected as regards heat-treatment, grade of finish, chemical and physical analysis of material, performance and fit in the unit, and checked with limit gages for size, accuracy and interchangeability.

Cap. Tons	Req'd Lift, ft.	Chain pull, lbs.	Chain pull, ft.	Wt. each, lbs.	Complete each	Extra Lift per ft.
1/4	6	72	18	23	\$36.00	\$4.80
1/2	7	110	24	30	42.00	4.80
1	8	190	30	50	56.00	5.00
1 1/2	8 1/2	225	36	81	72.00	5.40
2	9	300	42	121	90.00	5.60

Note—Each foot of extra lift includes 4 ft. of chain.

†Figures denote the pull in pounds required to lift the full load, and number of feet chain overhauled to lift the load one foot.

All above, open stock.

ROPE HOISTS

"U-W" STEEL SELF-LOCKING

Automatically locks at any angle. Does not tear or chew the rope.

Made of steel. Is safe, strong, and economical.

Furnished with roller bushed sheaves. Without rope.

Nos.	5	6	7
Capacity, lbs.	1500	3000	5000
Rope diam., in.	3/8	1/2	5/8, 3/4
Wt. each, lbs.	3.38	5.75	9.75
Each	\$1.10	2.00	3.00



GIN BLOCKS

ANVIL BRAND
For Manila Rope

Light pattern; wrought iron. Iron bushed. With stiff swivel hook.

Nos.	350-12	350-14
Diameter sheave, in.	12	14
For diameter rope, in.	7/8-1	1
Wt. each, lbs.	14	21
Each	\$4.00	6.00

WELL WHEELS

Japanned iron frame and wheel. Wrought iron hook.

No. 1—Regular

Diameter wheel, in.	10	12
Wt. each, lbs.	5	6 1/2
Each	\$1.90	2.30

No. 5—Extra Heavy

Diameter wheel, in.	14
Wt. each, lbs.	12
Each	\$4.00



HAY FORK PULLEYS

READING
Swivel Eye

Cast iron, japanned.

Round groove for 7/8 in. rope. 3 3/8 x 6 1/2 in. case.

Per dozen

No. 33—4 in. diameter sheave; wt. per dozen 26 1/4 lbs. \$8.20



IRON SHEAVES

"ANVIL BRAND", FOR MANILA ROPE
No. 1101

For Regular Blocks, Iron Bushed

Size sheave, in.	For block, in.	Weight each, lbs.	Each
1 3/4 x 1/2 x 3/8	3	1 1/2	\$0.69
2 x 1/2 x 3/8	3 1/2	1 1/2	.10
2 1/4 x 5/8 x 3/8	4	1 1/2	.12
2 3/4 x 3/4 x 3/8	4 1/2	2 1/2	.15
3 x 3/4 x 3/8	5	3 1/2	.20
3 1/2 x 1 x 1/2	6	3 1/2	.25
4 1/4 x 1 1/2 x 1/2	7	1 1/4	.50
4 3/4 x 1 3/4 x 1/2	8	1 1/2	.35

No. 1111

For Thick Mortise Blocks, Iron Bushed

Size sheave, in.	For block, in.	Weight each, lbs.	Each
4 3/4 x 1 3/4 x 5/8	8	2 1/2	\$0.40
5 1/2 x 1 3/4 x 5/8	9	3	.50
6 1/4 x 1 3/4 x 3/4	10	3 1/2	.65
7 x 1 1/2 x 3/4	11	5	.85
8 x 1 5/8 x 3/4	12	6 1/2	1.05
9 x 1 3/4 x 3/4	13	9	1.35
9 1/2 x 1 3/4 x 3/4	14	11 1/2	1.50
10 x 1 3/4 x 3/4	15	14 1/2	1.70

All above, open stock.



MANILA ROPE



Table showing breaking and working strength and yardage of 3-strand manila rope. Also extras on rope.

Breaking strength given is minimum required by U. S. Government. All U-W pure manila exceeds government strength regulations.

Size, Inches	Advance Over Base	Strength in Lbs.	Length in	Approx. Weights, Full Coil	Gross Lbs. Per Foot
Diam.	Per Lb.	Break- ing	One Lb.		
$\frac{1}{4}$	$\frac{3}{4}$	\$0.04	600	50'	.020
$\frac{3}{8}$	1	.04	1000	200	.029
$\frac{1}{2}$	$1\frac{1}{4}$	.03	1350	230	.041
$\frac{5}{8}$	$1\frac{1}{2}$	.01	1750	330	.053
$\frac{3}{4}$	$1\frac{3}{4}$	.01	2650	530	.075
$\frac{7}{8}$	2	.01	3450	690	.104
1	$2\frac{1}{4}$	.001 $\frac{1}{2}$	4400	880	.133
$1\frac{1}{8}$	3	Base	5400	1080	.167
$1\frac{1}{4}$	$3\frac{1}{2}$	Base	7700	1540	.225
$1\frac{3}{8}$	4	Base	9000	1800	.270
$1\frac{1}{2}$	$4\frac{1}{2}$	Base	12000	2400	.360
$1\frac{3}{4}$	5	Base	13500	2700	.418
$1\frac{7}{8}$	$5\frac{1}{2}$	Base	16000	3200	.529
2	6	Base	18500	3700	.600
			22500	4500	.744
			26500	5300	.905
			31000	6200	1.080

$\frac{1}{4}$ in. 2750 ft. in full coil; $\frac{3}{8}$ in. 2250 ft. in full coil; $\frac{1}{2}$ in. 1620 ft. in full coil; balance, 1200 ft. in full coil.

U-W GIANT MANILA

Three Strands

Made of 100 per cent pure manila. It is properly waterproofed and remains flexible under all conditions.

Per pound—base

Diameters, in.— $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$.

$1\frac{3}{8}$, $1\frac{1}{2}$, $1\frac{3}{4}$, $1\frac{7}{8}$ and 2 in. \$

In full and half coils.

WIRE ROPE CLIPS

"U-W"

Japanned or Galvanized



For rope, in.	Std. pkg. quantity	Wt. per 100 lbs.	Japanned per 100	Galvanized per 100
$\frac{1}{8}$	400	7	\$ 6.50	\$ 8.00
$\frac{1}{4}$	200	13 $\frac{1}{2}$	6.50	8.00
$\frac{3}{8}$	175	15	7.00	9.00
$\frac{1}{2}$	200	22	9.70	12.00
$\frac{5}{8}$	100	27	12.50	15.50
$\frac{3}{4}$	200	35	14.50	18.50
$\frac{7}{8}$	125	56 $\frac{1}{2}$	19.00	24.50
1	150	89	27.00	35.00
	100	135	38.50	50.00
	75	170	46.50	60.00

WIRE ROPE THIMBLES

"U-W" REGULAR Galvanized



For rope, in.	Wt. per 100 lbs.	Per 100	For rope, in.	Wt. per 100 lbs.	Per 100
$\frac{1}{4}$	4 $\frac{1}{4}$	\$ 4.40	$\frac{3}{4}$	34	\$13.00
$\frac{3}{8}$	5 $\frac{3}{4}$	5.25	$\frac{7}{8}$	51	16.00
$\frac{1}{2}$	10 $\frac{1}{2}$	6.00	1	65	21.00
$\frac{5}{8}$	11	7.00	$1\frac{1}{8}$	114	38.00
$\frac{3}{4}$	13	8.00	$1\frac{1}{4}$	136	44.00
$\frac{7}{8}$	25	10.00	$1\frac{1}{2}$	215	120.00
1	27	11.00			

Open stock.

TURNBUCKLES



With or Without Stub Ends

Drop forged, weldless, right and left hand standard threads.

Bolt Diam., in.	Opening, in.	Length over all, in.	Wt. with stubs each, lbs.	Wt. without stubs each, lbs.	With stubs each	Without stubs each
$\frac{3}{8}$	6	13	\$ 0.75	\$0.42	\$0.45	\$0.45
$\frac{1}{2}$	6	14	1.49	.76	.50	.50
$\frac{5}{8}$	6	15	2.31	1.10	.60	.60
$\frac{3}{4}$	6	16	3.27	1.53	.75	.75
$\frac{7}{8}$	6	17	4.40	2.31	.90	.90
1	6	18	6.40	2.95	1.10	1.10
$1\frac{1}{8}$	6	19	7.90	3.87	1.40	1.40
$1\frac{1}{4}$	6	19	10.50	4.60	1.70	1.70
$1\frac{3}{8}$	6	20	13.90	7.20	2.10	2.10
$1\frac{1}{2}$	6	20	14.95	7.20	2.50	2.50
$1\frac{3}{4}$	6	21	19.50	8.25	3.25	3.25
$1\frac{7}{8}$	6	22	21.30	8.25	4.00	4.00

Open stock.

SMALL TURNBUCKLES

HOOK AND EYE



Drop Forged Steel; Weldless

Bolt Diam., in.	Opening, in.	Length over all, in.	Wt. each, lbs.	Plain each	Galv. each
$\frac{1}{4}$	4	8	.31	\$0.42	\$0.50
$\frac{3}{8}$	4 $\frac{1}{2}$	9	.44	.45	.55
$\frac{1}{2}$	6	12	.79	.60	.72

Open stock.

EYE AND EYE



Gray Iron Body, Steel Eyes

Udylite Cadmium Plated

Nos.	Bolt diam., in.	Opening, in.	Length over all, in.	Wt. doz. lbs.	Per dozen
24	$\frac{1}{8}$	$1\frac{1}{2}$	3	1	\$1.10
34	$\frac{1}{8}$	$1\frac{1}{8}$	4	1.25	1.25
44	$\frac{3}{8}$	$2\frac{1}{4}$	4 $\frac{1}{2}$	1.5	1.50
54	$\frac{1}{4}$	$2\frac{5}{8}$	5 $\frac{1}{4}$	2.2	2.70
64	$\frac{3}{8}$	3	6	3.8	3.40
74	$\frac{1}{2}$	$3\frac{1}{2}$	6 $\frac{3}{4}$	6.0	5.00

One dozen in a box.

PORCH SWING CHAINS

BULL DOG



"Y" Type

Each set consists of two "Y" shaped chains, two ceiling hooks and two "S" hooks, sufficient for one swing.

Bright galvanized finish.

Per set

No. 455—7 $\frac{1}{2}$ ft. length; 5 ft. leader of No. 2/0 wire, 2 $\frac{1}{2}$ ft. branches No. 0 wire, safe load 240 lbs.; weight per set 3 $\frac{1}{2}$ lbs. \$1.20

One set in a carton.



Straight Type

Each set consists of four straight chains, four "S" hooks and two ceiling hooks, sufficient for one swing. Bright galvanized finish.

Per set

No. 1075—7 $\frac{1}{2}$ ft. length; No. 2/0 wire, safe load 240 lbs.; wt. per set 5 $\frac{1}{2}$ lbs. \$1.80

One set in a carton.

COIL OR CABLE CHAIN PROOF



Straight Link

Welded steel,
self-colored.

Size, in.	Proof test, lbs.	Break. test, lbs.	Links per ft.	Inside lgth., in.	Inside wth., in.	Wt. 100 ft., lbs.	Per 100 pounds
$\frac{3}{16}$	1045	2090	12 $\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8}$	40	\$13.95
$\frac{1}{4}$	1800	3600	12	1	$\frac{1}{2}$	70	13.20
$\frac{5}{16}$	2720	5440	10 $\frac{3}{4}$	1 $\frac{1}{4}$	$\frac{1}{2}$	105	12.45
$\frac{3}{8}$	3720	7440	9 $\frac{3}{4}$	1 $\frac{3}{4}$	$\frac{5}{8}$	158	10.80
$\frac{7}{16}$	5000	10000	8 $\frac{3}{4}$	1 $\frac{7}{8}$	$\frac{3}{4}$	210	10.50
$\frac{1}{2}$	6600	13200	8	1 $\frac{1}{2}$	$\frac{7}{8}$	265	10.35
$\frac{5}{8}$	10000	20000	6 $\frac{3}{4}$	1 $\frac{7}{8}$	1	410	10.35
$\frac{3}{4}$	14150	28300	5 $\frac{5}{8}$	2 $\frac{1}{8}$	1 $\frac{1}{4}$	580	10.20
$\frac{7}{8}$	19200	38400	4 $\frac{3}{4}$	2 $\frac{1}{2}$	1 $\frac{3}{8}$	780	10.05
1	24800	49600	4 $\frac{3}{8}$	2 $\frac{3}{4}$	1 $\frac{1}{2}$	1000	9.75

Straight Links, Galvanized

$\frac{3}{16}$	1045	2090	12 $\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8}$	40	\$18.45
$\frac{1}{4}$	1800	3600	12	1	$\frac{1}{2}$	70	16.95

Note—Safe working load is about $\frac{1}{2}$ the proof test pounds.

Open stock.



Twist Link

Welded steel,
self-colored.

Size, in.	Links, per ft.	Inside lgth., in.	Inside width, in.	Wt. per 100 ft., lbs.	Per 100 pounds
$\frac{3}{16}$	12 $\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8}$	44	\$15.45
$\frac{1}{4}$	11 $\frac{1}{2}$	1 $\frac{1}{8}$	$\frac{7}{8}$	75	14.70
$\frac{5}{16}$	10	1 $\frac{1}{4}$	$\frac{3}{4}$	115	13.95
$\frac{3}{8}$	9 $\frac{1}{2}$	1 $\frac{3}{8}$	$\frac{1}{2}$	175	12.30
$\frac{7}{16}$	7 $\frac{1}{2}$	1 $\frac{1}{2}$	$\frac{7}{8}$	220	12.00
$\frac{1}{2}$	7 $\frac{1}{4}$	1 $\frac{3}{8}$	$\frac{7}{8}$	295	11.85

Open stock.

MACHINE CHAIN ELWEL



Twist Link

Welded steel,
bright finish.

Nos.	Size	Tensile strength, lbs.	Links per ft.	Wt. 100 ft., lbs.	Per 100 ft.
6/0	$\frac{3}{16}$ in.	3420	11 $\frac{1}{2}$	75	\$16.00
5/0	$\frac{1}{4}$ in.	2660	12	57	13.75
4/0	$\frac{5}{16}$ in.	1990	14	43	9.25
3/0	5 ga.	1760	15	40	8.25
2/0	6 ga.	1510	16 $\frac{1}{2}$	34	8.00
1/0	7 ga.	1310	17 $\frac{1}{2}$	29	7.75
1	8 ga.	1140	21	25	7.25
2	9 ga.	1000	21	20	7.25
3	10 ga.	875	21 $\frac{1}{2}$	16	7.25
4	11 ga.	750	23 $\frac{1}{2}$	13	7.25

100 feet in a carton.

PUMP CHAIN

Open Link, Hot
Galvanized Finish

Per 100 pounds

No. 6—.192 in. wire; wt. per 100 ft., 27 lbs. \$16.50

100 pounds in a bag.

COIL CHAIN ELWEL

Straight Link
Welded steel,
bright finish.

Nos.	Size	Tensile strength, lbs.	Links per ft.	Wt. 100 ft., lbs.	Per 100 ft.
3/0	5 ga.	1670	8 $\frac{1}{2}$	32	\$5.50
2/0	6 ga.	1430	9 $\frac{1}{4}$	27	5.25
1/0	7 ga.	1240	9 $\frac{3}{4}$	23	5.00
1	8 ga.	1080	9 $\frac{1}{2}$	19	4.50
2	9 ga.	950	10 $\frac{1}{4}$	15	4.25
3	10 ga.	830	10 $\frac{3}{4}$	13	4.25

Twist Link
Welded steel,
bright finish.

Nos.	Size	Tensile strength, lbs.	Links per ft.	Wt. 100 ft., lbs.	Per 100 ft.
3/0	5 ga.	1670	8 $\frac{1}{4}$	33	\$5.50
2/0	6 ga.	1430	9 $\frac{1}{4}$	29	5.25
1/0	7 ga.	1240	9 $\frac{3}{4}$	24	5.00
1	8 ga.	1080	10	20	4.50
2	9 ga.	950	10 $\frac{1}{2}$	16	4.25
3	10 ga.	830	10 $\frac{1}{2}$	13	4.25

All above, 100 feet in a carton.

TRIUMPH



Lock-Link Pattern

Weldless steel wire,
bright finish.

Nos.	Size wire, in.	Tensile strength, lbs.	Wt. per 100 ft., lbs.	Per 100 ft.
6/0	.192	3110	43	\$11.00
5/0	.177	2610	36	9.00
4/0	.162	2018	32	7.50
3/0	.147	1873	27	6.25
2/0	.133	1610	22	5.00
1/0	.118	1100	17	4.50
1	.105	955	13	4.00
2	.094	650	10	3.50
3	.083	525	7	3.50
4	.072	410	6	3.50

100 foot lengths.

BROWN

Weldless Steel
Wire, Sherard-
ized Finish

Nos.	Size wire, in.	Tensile strength, lbs.	Wt. per 100 ft., lbs.	Per 100 ft.
3/0	.148	1285	20	\$5.00
2/0	.135	1215	17	4.00

100 foot lengths.

AMERICAN

Weldless Steel,
Bright Finish

Nos.	Tensile strength, lbs.	Wt. per 100 ft., lbs.	Per 100 ft.
2/0	1400	16	\$9.25
1	950	10	7.50
3	600	7 $\frac{1}{2}$	5.50
5	450	6	4.75
7	350	4	3.75
8	350	4	3.50
113	900	12 $\frac{1}{2}$	8.00

100 ft. in a carton.

COW TIES
OHIO



Weldless Ohio Pattern, Bright Finish
With two toggles and a swivel.

Nos.	Wire Ga. No.	Weight dozen, lbs.	Per dozen
4/0	8	19½	\$5.50
3/0	9	15	5.00

One-half dozen in a box.

TIE-OUT OR PICKET CHAINS
BROWN



Weldless Brown Pattern, Bright Finish
Equipped with ring, swivel snap and
extra swivel every 10 feet.

Length 20 Feet

Nos.	Wire Ga. No.	Weight dozen, lbs.	Per dozen
2/0	10	43	\$14.00
3/0	9	50	14.50

Length 30 Feet

Nos.	Wire Ga. No.	Weight dozen, lbs.	Per dozen
2/0	10	66	19.00
3/0	9	72	21.50

One in a cloth bag.

HALTER CHAINS
BROWN



Weldless Steel, Bright Finish

Fitted with swivel snap, ring and toggle.

Length 4½ Feet

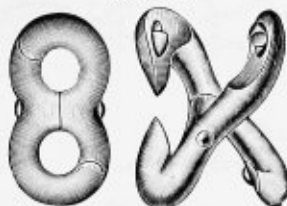
Nos.	Wt. doz., lbs.	Per dozen
6/0	22	\$7.50
5/0	20	6.50
4/0	16	5.50
3/0	12½	4.75
2/0	10	4.25
1/0	8	3.75
1	6½	3.50
2	5¼	3.25
3	4	3.25
4	3¾	3.15
5	3	3.15
6	2¾	3.00
7	1¾	3.00

Length 6 Feet

Nos.	Wt. doz., lbs.	Per dozen
6/0	27	\$9.50
5/0	24	8.00
4/0	19½	7.00
3/0	16½	6.75
2/0	13½	5.50
1/0	10½	4.75
1	8	4.25
2	6½	4.00
3	5¼	4.00
4	4	3.75
5	3¾	3.75
6	2¾	3.65
7	2¼	3.65

No. 6/0 to 1/0, half dozen in a box, balance, one dozen in a box.

CONNECTING LINKS
SWING



Drop Forged Steel, Bronze Rivets, Self-Colored

Size, in.	Length over all, in.	Width over all, in.	Wt. doz., lbs.	Per dozen
¼	1½	½	1	\$2.20
⅜	2¼	1½	1½	2.40
½	2½	1½	2½	2.70
⅝	3½	1½	5½	4.30

One dozen in a box.

CHAIN LAP LINKS
EBERHARD



Malleable iron:
polished.

Nos.	Chain, in.	Eye, in.	Length ins., in.	Wt. each, lbs.	Per dozen
2530A	¼	¾	1½	½	\$1.30
2530B	⅜	¾	1½	¾	1.40
2530C	½	¾	1½	¾	1.80
2530D	⅝	¾	2½	¾	2.80
2530F	¾	¾	2½	¾	3.80
2530G	⅞	¾	2½	¾	5.00
2530H	1	¾	3	1½	6.50
2530K	¾	1½	3½	1½	8.50

Open stock.

REPAIR LINKS
OPEN END



No. 150—
Wrought Iron,
Bright Finish

Size, in.	Lgth., in.	No. in box, doz.	Wt. gro., lbs.	Per gross
⅝	1½	3	5	\$10.40
⅞	1¾	3	5½	10.80
1	1¾	3	9	12.60
1¼	2	3	10	13.20
1½	2½	3	20	17.60
1¾	3	2	33	24.40

Open stock.



American—
Cold Forged
Steel, Bright
Finish

Size, in.	Lgth., in.	Width, in.	No. in box, doz.	Wt. gro., lbs.	Per gross
¾	1¼	½	6	8	\$3.00
⅝	2	¾	4	15	4.60
⅞	2½	¾	3	29	5.40

CHAIN SWIVELS
EBERHARD



Malleable Iron; Heavy Pattern

No. 7715B—3¼ in. long, ½ in. eye,
⅝ in. wire; wt. per dozen 3 lbs. \$1.20



Malleable Iron

Nos.	Lgth., in.	Eye, in.	Wire, in.	Wt. per 100, lbs.	Per dozen
7700A	1½	⅜	⅝	2½	\$0.60
7700B	1¾	¼	¾	3½	.85
7700D	2	⅜	¾	7	1.00

All above, open stock.

CHAIN HOOKS
SLIP



Drop Forged Steel, Self-Colored

Shaped to permit the chain to slip
through the bowl of the hook.

Nos.	Chain size, in.	Reach, in.	Hole in eye, in.	Wt. 100, lbs.	Per 100
21	¼	2½	⅜	20	\$9.70
22	⅜	2¾	½	50	12.50
23	½	2¾	¾	57	17.60
24	⅝	3¾	¾	87	23.00
25	¾	3¾	¾	135	31.30
26	⅞	4¾	1	265	59.00
27	1	5	1½	400	90.00
28	1¼	6½	1¾	870	260.00
29	1½	8½	1¾	1350	420.00

GRAB



Drop Forged Steel, Self-Colored

Shaped so that when hooked over a link
of chain, it will hold securely and not
slip.

Nos.	Chain size, in.	Reach, in.	Hole in eye, in.	Wt. 100, lbs.	Per 100
41	¼	2	¾	26	\$9.70
42	⅜	2½	¾	47	12.50
43	½	2½	¾	80	17.60
44	⅝	3¾	¾	135	23.00
45	¾	4	¾	165	31.30
46	⅞	4¾	1	340	59.00
47	1	5¾	1½	655	90.00
48	1¼	7½	1¾	1185	260.00
49	1½	8	1¾	1920	420.00

All above, open stock.

LADDER CHAIN



No. 17



No. 18



No. 19

Brass

Nos.	Gauge, in.	Wt. 100 ft., lbs.	Per 100 ft.
16	.0625	6½	\$8.00
17	.054	5	5.50
18	.0475	3¾	4.75
19	.041	2½	4.00
20	.0348	2¼	6.25
22	.0286	1¼	8.50

SINGLE JACK CHAIN



No. 8



No. 12



No. 16

Nos.	Wt. 100 ft., lbs.	Steel Per 100 ft.	Wt. 100 ft., lbs.	Brass Per 100 ft.
5	33½	\$5.50	36	\$35.00
6	29	4.50	31	27.75
8	19½	3.25	21¾	18.00
10	14½	2.75	15¾	12.00
12	8¾	2.25	9¾	8.00
14	4¾	1.90	5¾	5.50
16	3	1.65	3¾	3.50
18	1¾	1.50	1¾	2.50
20	¾	1.50	1½	2.00
22	¾	1.55	¾	2.00
24	½	1.65	½	2.10

DOUBLE JACK CHAIN



No. 12



No. 14

Nos.	Wt. 100 ft., lbs.	Steel Per 100 ft.	Wt. 100 ft., lbs.	Brass Per 100 ft.
10	21	\$3.25	22½	\$16.75
12	12¾	2.50	13½	11.00
14	7½	2.10	7¾	7.00
16	4	1.85	4¾	4.50
18	2¾	1.65	2½	3.25
20	1¾	1.65	¾	2.50
22	¾	1.75	¾	2.25
24	½	1.85	¾	2.50

All above, 50 ft. in a carton.

SAFETY CHAIN



No. 1

Nos.	Gauge, in.	Wt. 100 ft., lbs.	Brass Per 100 ft.	Nickel Plated Brass Per 100 ft.
00	.018	1¾	\$4.00	\$4.30
0	.023	2½	5.00	5.30
1	.028	2¾	6.25	6.75
2	.028	3¾	8.00	8.70

Fifty feet in a carton.

PLUMBERS' CHAIN

NAVY LINK



No. 3

Nos.	Gauge, in.	Wt. 100 ft., lbs.	Brass Per 100 ft.	Nickel Plated Brass Per 100 ft.
3	.035	5½	\$10.00	\$10.70
4	.042	8	11.50	12.20

Fifty feet in a carton.

UNIVERSAL CHAIN

DOUBLE JOINTED



3/16 in.



1/4 in.



5/16 in.



3/8 in.



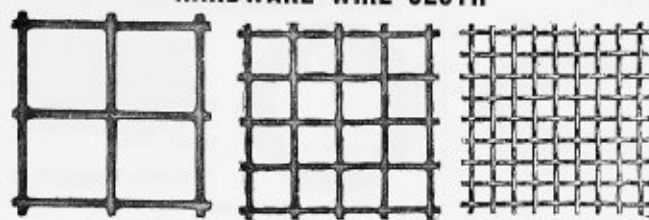
1/2 in.

Ornamental, strong and flexible as a piece of twine. Will never kink or snarl.

Size, in.	Approx. wt. per 100 ft., lbs.	Solid Brass Per 100 ft.	Retinned Per 100 ft.
3/16	2¾	\$11.00	\$5.25
1/4	5¼	11.25	6.00
5/16	7½	13.75	7.50
3/8	11¾	17.00	9.00
1/2	15	25.00	13.50

100 feet in a box.

HARDWARE WIRE CLOTH



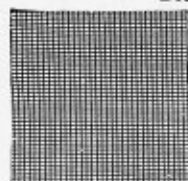
Standard Hardware Grade; Galvanized After Weaving				
Nos.	2	3	4	8
Mesh	2x2	3x3	4x4	8x8
Gauge of wire	19	21	23	27
Widths, in.	24, 30, 36	24, 30, 36	24, 30, 36	24, 30, 36, 48
Wt. of 100 sq. ft., lbs.	31	30	28	23.5
Per 100 sq. ft.	\$7.00	7.50	8.00	9.50

In 50 and 100 lineal foot rolls.

In 50 Foot Lengths

24 in. rolls contain 100 sq. ft.; 30 in., 125 sq. ft.; 36 in., 150 sq. ft.; 48 in., 200 sq. ft.; 100 lineal foot rolls contain twice the above amounts.

BRASS STRAINER CLOTH



High quality brass wire accurately woven on looms.

Used for milk strainers, gasoline strainers, calcimine strainers, well points, water filterers, ventilators, dust catchers, etc.

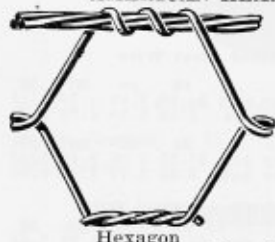
In Rolls 12 in. Wide, 5 ft. Long

Nos.	24	30	40	50	60	70	80	100
Mesh	24x24	30x30	40x40	50x50	60x60	70x70	80x80	100x100
Ga. wire	26	28	33	35	36	37	38	40
Per sq. ft.	\$0.80	.85	.40	.45	.50	.55	.75	1.00

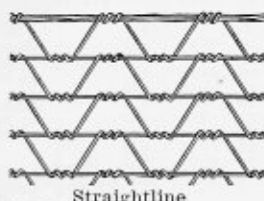
One roll in a carton.

POULTRY NETTING

AMERICAN HEXAGON AND STRAIGHTLINE



Hexagon



Straightline

Galvanized After Weaving

1 Inch Mesh, No. 20 Wire

Width, in.	12	18	24	30	36	48	60	72
Sq. ft. in 150 ft. roll	150	225	300	375	450	600	750	900
Approx. wt. per 150 ft. roll, lbs.	18	26	34	43	50	65	80	97

150 Lineal Ft. Rolls, per roll \$2.44 3.51 4.59 5.69 6.67 8.63 10.71 12.93

50 Lineal Ft. Rolls, per roll 1.00 1.35 1.71 2.08 2.40 3.06 3.75 4.49

1½ Inch Mesh, No. 18 Wire

Width, in.	12	18	24	30	36	48	60	72
Square feet in 150 ft. roll	150	225	300	375	450	600	750	900
Approx. wt. per 150 ft. roll, lbs.	116							
Per roll	\$13.27							

2 Inch Mesh, No. 20 Wire

Width, in.	12	18	24	30	36	48	60	72
Sq. ft. in 150 ft. roll	150	225	300	375	450	600	750	900
Approx. wt. per 150 ft. roll, lbs.	11	15	19	23	27	35	43	51

150 Lineal Ft. Rolls, per roll \$1.18 1.61 2.04 2.46 2.88 3.72 4.55 5.41

50 Lineal Ft. Rolls, per roll .57 .72 .86 1.00 1.14 1.42 1.71 1.98

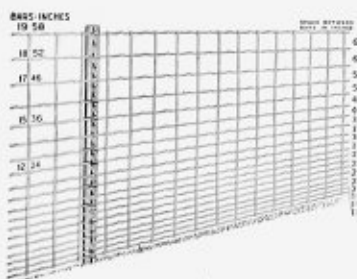
2 Inch Mesh, No. 16 Wire

Width, in.	12	18	24	30	36	48	60	72
Square feet in 150 ft. roll	150	225	300	375	450	600	750	900
Approx. wt. per 150 ft. roll, lbs.	153							
Per roll	\$15.29							

Complete Catalog on Fencing Furnished on Request.

POULTRY AND GARDEN FENCE

PITTSBURGH PERFECT



A copper-bearing super-zinc galvanized stiff-stay fence.

Fabricated by electric welding—fuses the line and stay wires together into a one-piece fabric which cannot be pulled apart.

The spacing graduates from 1½ inches at the bottom to 6 inches at the top.

No. 14 Gauge

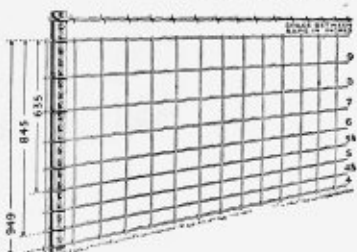
Top and bottom wires No. 11 gauge, all other wires No. 14 gauge. Stay wires 6 inches apart.

Nos.	1536	1746	1958
No. of bars	15	17	19
Height, in.	36	46	58
Approx. wt. per rod, lbs.	6.7	7.7	8.7
Per roll	\$9.00	10.70	11.90

Ten rods in a roll.

CATTLE AND SHEEP FENCE

PITTSBURGH PERFECT



A practical and economical enclosure for horses, cattle and sheep.

A copper-bearing, super-zinc galvanized stiff stay, open-mesh fence.

Fabricated by electric welding—fuses the line and stay wires together into a one-piece fabric which cannot be pulled apart.

No. 9 Gauge, 6 Inch Stays

All wires No. 9 gauge, stay wires 6 inches apart.

Nos.	635-9-6	845-9-6	949-9-6
No. of bars	6	8	9
Height, in.	35	45	49
Approx. wt. per rod, lbs.	15.7	17.9	19.0
Per roll	\$14.25	18.75	20.75

Ten rods in a roll.

No. 9 Gauge, 12 Inch Stays

All wires No. 9 gauge. Stay wires 12 inches apart.

Nos.	635-9-12	845-9-12	949-9-12
No. of bars	6	8	9
Height, in.	35	45	49
Approx. wt. per rod, lbs.	8.9	11.6	13.0
Per roll	\$9.75	12.75	14.00

Ten rods in a roll.

No. 11 Gauge, 6 Inch Stays

Top and bottom wires No. 9 gauge, all other wires No. 11 gauge. Stay wires 6 inches apart.

Nos.	635-11-6	845-11-6	949-11-6
No. of bars	6	8	9
Height, in.	35	45	49
Approx. wt. per rod, in.	9.5	12.2	13.5
Per roll	\$10.25	13.25	14.50

Ten rods in a roll.

No. 11 Gauge, 12 Inch Stays

Top and bottom wires No. 9 gauge, all other wires No. 11 gauge. Stay wires 12 inches apart.

Nos.	635-11-12	845-11-12	949-11-12
No. of bars	6	8	9
Height, in.	35	45	49
Approx. wt. per rod, lbs.	6.4	8.3	9.2
Per roll	\$7.25	9.25	10.25

Ten rods in a roll.

MARKET WIRE



Price Per 100 Lbs.
100 pounds in a bundle.

Gauge Nos.	Diam. in.	Feet to lb.	Copper-Bright	Copper-Tinned
0 to 5	.3065-.3991	8.75	\$....	\$....
6	.1920	10.17	.....	.....
7	.1770	11.97	.....	.....
8	.1620	14.29	.....	.....
9	.1483	17.05	.....	.....
10	.1350	20.87	.....	.....
11	.1205	25.82	.....	.....
12	.1055	33.69	.....	.....
13	.0915	44.78	.....	.....
14	.0800	58.58	.....	.....
15	.0720	72.32	.....	.....
16	.0625	95.98	.....	.....
17	.0540	128.6	.....	.....
18	.0475	166.2	.....	.....

STONE WIRE



Put up in 8 in. inside diameter coils, weighing 12 pounds each.

Price Per 100 Pounds

Ga. No.	Diam. in.	Ft. to lb.	Blk. An-nealed	Galv. Tinned
16	.0625	95.98	.....	.....
17	.054	128.6	.....	.....
18	.0475	166.2	.....	.....
19	.0410	223.0	.....	.....
20	.0348	309.6	.....	.....
21	.0317	373.1	.....	.....
22	.0286	458.1	.....	.....
23	.0258	553.3	.....	.....
24	.0230	708.7	.....	.....
25	.0204	900.9	.....	.....
26	.0181	1144	.....	.....
27	.0173	1253	.....	.....
28	.0162	1429	.....	.....
29	.0150	1666	.....	.....
30	.0140	1913	.....	.....
31	.0132	2152	.....	.....

COPPERED STEEL SPRING WIRE

100 Pounds in a Bundle

Gauge Nos.	00 to 9	10	11	12
Diam. in.	.3210-.1483	.1350	.1205	.1055
Ft. to lb.	3.422-17.05	20.57	25.82	33.69
Per 100 lbs.	.....	.....	.....	.....
Gauge Nos.	13	14	15	16
Diam. in.	.0915	.0800	.0720	.0625
Ft. to lb.	44.78	58.58	72.32	95.98
Per 100 lbs.	.....	.....	.....	.....

12 Pounds in a Stone

Gauge Nos.	17	18	19
Diam. in.	.0540	.0475	.0410
Ft. to lb.	128.6	166.2	223.0
Per 100 lbs.	.....	.....	.....
Gauge Nos.	20	21	22
Diam. in.	.0348	.0317	.0286
Ft. to lb.	309.6	373.1	458.4
Per 100 lbs.	.....	.....	.....

STOVE PIPE WIRE



Dark Annealed 50
Foot Coils

Gauge	Wt. doz.	Per dozen
18	3.75	\$0.54
19	2.85	.48
20	2.30	.42

One dozen coils in a box.

5 Pound Reels

Gauge Nos.	Each
18	\$1.50
19	1.75
20	2.00

Open stock.

BRASS WIRE
SPRING BRASS AND SOFT BRASS

In Coils
Brown & Sharpe's Gauge

Gauge Nos.	Diam. in.	Wt. ft. lgr.	Adv. over base, lb.	Gauge Nos.	Diam. in.	Wt. ft. lgr.	Adv. over base, lb.
1	.1285	.0474	.....	17	.0538	.0074	.....
2	.1144	.0376	.....	18	.0403	.0048	.....
3	.1019	.0298	.....	19	.0359	.0037	.....
4	.0907	.0236	.....	20	.0320	.0029	.....
5	.0808	.0187	.....	21	.0285	.0023	.....
6	.0720	.0149	.....	22	.0254	.0018	.....
7	.0641	.0118	.....	23	.0226	.0014	.....
8	.0571	.0093	.....	24	.0201	.0011	.....

Extras for Quantities Less Than 200 Lbs. Per pound

199 to 100 lbs.	.....
99 to 75 lbs.	.....
74 to 50 lbs.	.....
49 to 25 lbs.	.....
Under 25 lbs.	.....

SOFT COPPER WIRE



Round Solid
Bare in
Coils

Brown & Sharpe Ga.

Gauge Nos.	Diam. in.	Wt. 1000 ft. lbs.	Adv. over base, lb.	Gauge Nos.	Diam. in.	Wt. 1000 ft. lbs.	Adv. over base, lb.
1	.2893	253.	.....	13	.0750	15.68	.....
2	.2576	200.9	.....	14	.0641	12.43	.....
3	.2294	159.3	.....	15	.0571	9.858	.....
4	.2043	126.4	.....	16	.0508	7.818	.....
5	.1819	100.2	.....	17	.0453	6.200	.....
6	.1620	79.46	.....	18	.0403	4.917	.....
7	.1443	63.02	.....	19	.0359	3.899	.....
8	.1285	49.98	.....	20	.0320	3.092	.....
9	.1144	39.63	.....	21	.0285	2.452	.....
10	.1019	31.42	.....	22	.0254	1.945	.....
11	.0907	24.92	.....	23	.0226	1.542	.....
12	.0808	19.77	.....	24	.0201	1.223	.....

Extras for Quantities Less Than 200 Lbs. Per pound

199 to 100 lbs.	.....
99 to 75 lbs.	.....
74 to 50 lbs.	.....
49 to 25 lbs.	.....
Under 25 lbs.	.....

WEAVING WIRE



Soft Galvanized;
In 100 Foot Coils;
Suitable for gar-
ages in repairing
automobiles, radio
guy wires for aerials,
camping outfits,
fences around gar-
dens or lawns, etc.

Ga. Nos.	Coils in ctn.	Wt. doz. lbs.	Per doz.
10	6	58	\$7.20
12	12	36	5.34
14	12	20%	3.73

TAG WIRE



Tinned Annealed, Straight Lengths,
Bundles of 1000 Wires

Ga. Nos.	Wt. bdle, lbs.	Per bundle
23	1.77	\$0.72
26	.87	.48

MUSIC WIRE



For Mechanical
Purposes
An extra high tem-
pered wire of great
tensile strength and
toughness.

Paper Wrapped

1 Pound Coils

Nos.	Dia.	Ft. per lb.	Nos.	Dia.	Ft. per lb.
1	.010	3749	24	.055	124
2	.011	2936	25	.059	108
3	.012	2604	26	.063	94
4	.013	2218	27	.067	81
5	.014	1913	28	.071	74
6	.016	1465	29	.075	68
7	.018	1157	30	.080	63
8	.020	937	31	.085	54
9	.022	775	32	.086	51
10	.024	651	33	.091	46
11	.026	560	34	.094	43
12	.029	447	35	.098	39
13	.031	391	36	.102	36
14	.033	344	37	.106	34
15	.035	305	38	.110	32
16	.037	274	39	.114	29
17	.039	247	40	.118	27
18	.041	223	41	.125	23
19	.043	203	42	.1406	21
20	.045	185	43	.1562	18
21	.047	170	44	.1718	15
22	.047	170	45	.1875	10
23	.051	144	120		

One coil in a box.

SPOOLED WIRE

MALIN



Annealed Steel Wire

Gauge Nos.	16	18	20	22
1/4 lb. spools, per doz.	\$0.95	1.05	1.10	1.15
1/2 lb. spools, per doz.	1.90	2.10	2.20	2.30
Gauge Nos.	24	26	28	30
1/4 lb. spools, per doz.	\$1.25	1.35	1.40	1.45
1/2 lb. spools, per doz.	2.50	2.70	2.80	2.90

Annealed Tinned Steel Wire

Gauge Nos.	16	18	20	22
1/4 lb. spools, per doz.	\$1.15	1.25	1.30	1.35
Gauge Nos.	24	26	28	30
1/4 lb. spools, per doz.	\$1.45	1.55	1.70	1.85

Soft Brass Wire

Gauge Nos.	16	18	20	22
1/4 lb. spools, per doz.	\$2.20	2.30	2.35	2.50

Gauge Nos.	24	26	28	30
1/4 lb. spools, per doz.	\$2.65	2.75	3.10	3.55

Spring Brass Wire

Gauge Nos.	16	18	20	22
1/4 lb. spools, per doz.	\$2.20	2.30	2.35	2.50

Gauge Nos.	24	26	28	30
1/4 lb. spools, per doz.	\$2.65	2.75	3.10	3.55

Soft Copper Wire

Gauge Nos.	16	18	20	22
1/4 lb. spools, per doz.	\$2.20	2.30	2.35	2.50

Gauge Nos.	24	26	28	30
1/4 lb. spools, per doz.	\$2.65	2.75	3.10	3.55

Gauge Nos.	24	26	28	30
1/4 lb. spools, per doz.	\$2.65	2.75	3.10	3.55

Hair Wire, 1 Ounce Spools

Gauge Nos.	28	30	32
Black, per gross	\$3.50	3.75	4.00
Tinned, per gross	4.25	4.50	4.75

Gauge Nos.	34	36
Black, per gross	\$4.25	5.25
Tinned, per gross	5.00	6.00

All above, one dozen in a box.

INSULATED BELL WIRE

MALIN

No. 18 Gauge, Cotton Wrapped, Assorted Colors

For home mechanics', amateur electricians' or light electrical work.

Size spool, ft.	25	50	100
Per dozen	\$1.90	3.50	6.50

One dozen spools in a box.

BALE TIES

SINGLE LOOP, ADJUSTABLE



14 Gauge

Length, ft.	8½	9	9½
Wt. bundle, lbs.	37.7	39.8	42.0
Per bundle	\$2.75	3.25	3.75

15 Gauge

Length, ft.	8½	9	9½
Wt. bundle, lbs.	30.5	32.3	34.0
Per bundle	\$2.50	3.00	3.50

250 in a bundle.

FLAT STRIP BRASS



Catch Weight Bundles, No. 19 Gauge

Width, inches .. ½	¾	1	1¼	1½	1¾	2
Per pound						Market

BESSEMER STEEL RODS



Coppered Steel, 4 ft. Lengths

Diameter, inches	½	¾	1	1¼	1½	1¾	2
Per pound							Market

ROUND BRASS RODS



Free Turning

Stock lengths vary from 8 to 12 ft.

Diameter, inches	¾	1	1¼	1½
Wt. per foot, lbs. ....	.045	.101	.181	.283

Diameter, inches	¾	1	1¼	1½
Wt. per foot, lbs. ....	.407	.555	.724	

Diameter, inches	¾	1	1¼	1½
Wt. per foot, lbs.	1.13	1.63	2.21	2.90

Diameter, inches	1½	1¾	1½	
Wt. per foot, lbs.	3.67	4.53	6.52	

Note—Prices on application, with specifications.

ROUND DRILL RODS



Polished Crucible Steel

Size In.	Decimal Equiv.	Lbs. Per Foot	Per Pound	Size In.	Decimal Equiv.	Lbs. Per Foot	Per Pound
1/8	.0312	.0026	\$5.00	1 1/8	.125	.260	\$0.60
3/16	.0468	.006	3.50	1 1/4	.1375	.313	.60
1/4	.0625	.010	2.25	1 1/2	.1875	.375	.60
5/16	.0781	.017	1.75	1 3/4	.2062	.437	.60
3/8	.0937	.023	1.75	1 7/8	.2187	.510	.60
7/16	.1093	.031	1.45	2	.25	.583	.60
1/2	.125	.042	1.30	2 1/8	.2656	.667	.55
9/16	.1406	.052	1.15	2 1/4	.2812	.844	.55
5/8	.1562	.066	1.05	2 3/8	.3031	1.042	.55
11/16	.1718	.078	1.05	2 1/2	.3125	1.250	.55
3/4	.1875	.094	.85	2 3/4	.3375	1.500	.55
13/16	.2031	.109	.80	3	.375	1.750	.55
7/8	.2187	.129	.75	3 1/8	.3906	2.042	.55
15/16	.2343	.147	.70	3 1/4	.4062	2.333	.55
1	.250	.167	.65	1	1.000	2.666	.55
1 1/8	.2812	.213	.65				

In one and three foot lengths.

BRAZED BRASS TUBING



No. 18 B. & S. Gauge (.0403)

Outside diam., inches	1/8	1/4	3/8	1/2	5/8
Outside diam., inches	3/4	1	1 1/4	1 1/2	2

Note—Prices on application, with specifications.

WALL TIES

WHALEBONE

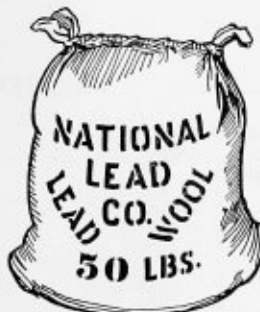


Galvanized Sheet Steel

Two holes at one end, making them suitable for veneer or solid walls.

No. 1—¾x7 inches; wt. per 1000, 35 lbs.	Per 1000
One thousand in a carton.	\$3.50

LEAD WOOL



Used extensively in caulking water and gas pipes. Makes an elastic joint and enables caulking under water. Eliminates melting of lead and all waste.

50-Pound Bags	Per pound
	\$0.30

ASBESTOS WICK PACKING



Made of several strands of long fibre asbestos, loosely twisted in the form of a rope. Strands can be separated if so desired. Furnished in ¼ inch size.

1 Pound Balls	Per pound
	\$0.70

Open stock.

PREPARED ROOFING**VULCANITE, MINERAL SURFACED**

An extra quality roofing with patented Sealed Granules feature which resists blistering, staining, shedding and other faults.

Combines lasting protection, fire resistance and beautiful colorings with economy. "Millerized" for longer life. Complete with nails and cement.

108 Sq. Ft. in a Roll,
36 in. Wide

Per roll

Red—Wt. per roll 75 lbs. \$3.25
Green—Wt. per roll 75 lbs. 3.25

Open stock.

VULCANITE ALLIGATOR, SMOOTH SURFACED

Sturdily built with a tough base of superior quality. Universally recognized as a leading brand of roofing.

Used for new construction or re-roofing and in the construction of built-up roofs.

Complete with nails and cement.

108 Sq. Ft. in a Roll,
36 in. Wide

Per roll

Light—Wt. per roll 35 lbs. \$2.00
Medium—Wt. per roll 45 lbs. 2.50
Heavy—Wt. per roll 55 lbs. 3.75

Open stock.

PATROL BRAND, SMOOTH SURFACED

A good quality roofing suitable for construction and re-roofing and various other uses.

Especially desirable for outbuildings and sheds where economy is the first consideration.

Complete with nails and cement.

108 Sq. Ft. in a Roll,
36 in. Wide

Per roll

Light—Wt. per roll 35 lbs. \$1.75
Medium—Wt. per roll 45 lbs. 2.25
Heavy—Wt. per roll 55 lbs. 2.75

Open stock.

PREPARED ROOFING**YEOMAN, SMOOTH SURFACED**

A general purpose roofing that may be used for several purposes.

May be used for sheathing and waterproofing.

Complete with nails and cement.

108 Sq. Ft. in a Roll,
36 in. Wide

Per roll

Light—Wt. per roll 35 lbs. \$1.60
Medium—Wt. per roll 45 lbs. 2.10
Heavy—Wt. per roll 55 lbs. 2.50

Open stock.

SHEATHING PAPER VULCANITE**Red Rosin Sized**

An unsaturated paper sized with rosin. Used as an insulating paper between floors, walls, under clapboards, etc. Also for lining freight cars, barrels, packing cases and crates.

500 Sq. Ft. in a Roll,
36 in. Wide

Per roll

No. 20—Wt. per roll 20 lbs. \$1.20
No. 25—Wt. per roll 25 lbs. 1.50

Open stock.

SLATERS' FELT VULCANITE**Tarred**

Made of felt thoroughly saturated with coal tar, highly waterproof.

Made especially for use underneath slate or tile roofs. May also be used for sheathing residences, store buildings and similar structures.

500 Sq. Ft. in a Roll,
36 in. Wide

Per roll

No. 30SF—Wt. per roll 30 lbs. \$1.75

Open stock.

DEADENING FELT**VULCANITE**

Used extensively for lining, sheathing and sound-deadening purposes. Provides an insulating cushion against heat and cold.

Unexcelled as a liner for linoleums.

450 Sq. Ft. in a Roll,
36 in. Wide

Per roll

No. 1—Wt. per roll 50 lbs. \$3.00
No. 2—Wt. per roll 75 lbs. 4.50

Open stock.

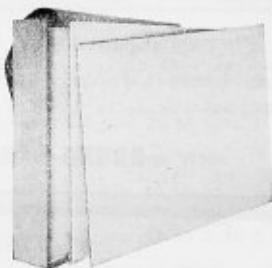
ASBESTOS PAPER

Composed of pure Canadian asbestos fibre. Used as a protection against heat or as a fire retardant; used for wrapping furnace or heater pipes or as an insulation material when minimum thickness is a factor.

In Rolls, 36 in. Wide

Nos.	12	16	32
Wt. 100 sq. ft., lbs.	12	16	32
App. sq. ft. per 100 lbs.	864	639	381
Per pound	\$0.12	.12	.12

50 pounds in a roll.

ASBESTOS MILLBOARD**Medium Hard**

Made from long fibre pure asbestos, white in appearance. Especially adapted for fire-proof lining of floors, partitions, etc., also for packing, fire screens, lining for ranges, stoves, grates, gas backs, etc.

In Sheets 42x48 in.

Thickness, in.	1/8	1/4
Wt. per sheet, lbs.	9.0	17.6
Per pound	\$0.15	.15

350 pounds in a crate.

BLACK ROOF PAINT

RUTLAND

Without Fibre

For protecting metal or paper roofs and renewing the life of asphalt shingles and composition roofing. Being thinner than roof coating or cement, it will cover a larger area.

This paint should not be used where the roof is in bad condition, but only where the roof is in fairly good condition and surface protection is needed.

Black

Size pails, gals.....	1	5
Pails in case.....	4	1
Wt. case, lbs.....	37	44½
Per gallon	\$0.75	.60

ROOF COATING

RUTLAND, NO-TAR-IN



For covering whole roofs.

Composed of asphalt, asbestos and slow-drying mineral oil.

May be used on metal, paper, built-up or composition roofing. Will give new life to an old roof.

It is elastic and adapts itself to expansion and contraction of the roof.

Will not crawl, sag, harden, peel or blister. Contains no coal tar.

Black

Size pails, gals.....	1	5
Pails in case.....	4	1
Wt. case, lbs.....	40	46½
Per gallon	\$0.75	.60

Red

Size pails, gals.....	1	5
Pails in case.....	4	1
Wt. case, lbs.....	38	45
Per gallon	\$1.65	1.50

PREMIER



A mixture of gums, oil and asbestos fibre in liquid form. Will renew roofs that can no longer be benefited by paint. Will make them water and weatherproof.

Black

Size cans, gals.....	1	5
Cans in case.....	6	1
Wt. case, lbs.....	37	47
Per gallon	\$0.60	.50

PLASTIC ROOF CEMENT

RUTLAND No. 4



Used for general roof repair work or for covering whole roofs when the condition of the roof is very bad.

It is composed of asphalt, asbestos fibre and drying oils. Does not contain coal tar in any form.

Applied with trowel or putty knife.

Black

Size cans, lbs.....	1	2½	5
Cans in case.....	24	12	12
Wt. case, lbs.....	32	37	73½
Per pound	\$0.15	.14	.12

Size pails, lbs.....	10	25
No. in case.....	4	1
Wt. case, lbs.....	46½	28
Per pound	\$0.11	.09

PREMIER



Water and weather-proof. For repairing leaks in roofs, gutters, drains, valleys, etc.

Composed of a mixture of gums, oils and asbestos fibre.

Applied with a trowel or putty knife.

Black

Size cans, lbs.....	1	5	10
Cans in case.....	36	6	4
Wt. case, lbs.....	48	35	46
Per pound	\$0.12	.11	.09

Size cans, lbs.....	25	50
Cans in case.....	1	1
Wt. case, lbs.....	28	57
Per pound	\$0.07	.05

CAULKING COMPOUND

CAULK-O-SEAL



Gun Grade

A plastic caulking material for sealing cracks and openings around door and window frames. Dries to a rubber-like consistency, firm but plastic beneath the surface, with a tough leathery, waterproof hide. Allows for contraction and expansion, unaffected by heat or cold. Will not stain or bleed through paint. Forms a perfect adhesion to any surface. Never dries out, cracks or crumbles. A special process "seals in" the oils making it non-oil-exudent. Also ideal for glazing.

Gray

Size cans, gals.....	½	1
Cans in carton.....	6	6
Wt. carton, lbs.....	40	80
Per can	\$1.60	3.00

Size drums, gals.....	5
Weight drum, lbs.....	65
Per gallon	\$2.85

Red and Black

Size cans, gal.....	½	1
Cans in carton.....	6	6
Wt. carton, lbs.....	40	80
Per can	\$1.60	3.00

Caulk-O-Seal in Tubes

In tubes with specially designed nozzle attached for easy application. Pressure key supplied with each tube. Gray color.

Per dozen

Jumbo Tubes—½ gal. sizes; wt. per dozen 30 lbs.....\$12.00

One dozen in a carton.

CAULKING GUNS

ALBION PRESSURE



Suction-Filled

For caulking, glazing, seaming or applying any plastic or semi-liquid material.

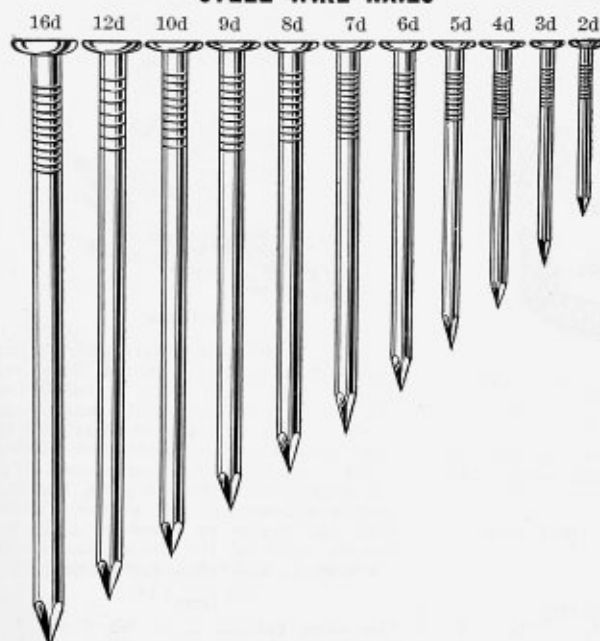
Swivel handle with balanced grip. Variable handle grip leverage for super-pressure. Has stopflow pressure release lever. Standard pipe thread nozzle. Polished cadmium rust-proof.

Each

No. 32—Cap. 32 cu. in., 2x10 in. cylinder, ½ in. nozzle; wt. each 3½ lbs.\$4.50

One in a carton.

STEEL WIRE NAILS



BRIGHT COMMON

Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
2d	1	15	876	\$1.65
3d	1 1/4	14	568	1.15
4d	1 1/2	12 1/2	316	.80
5d	1 3/4	12 1/2	271	.70
6d	2	11 1/2	181	.60
7d	2 1/4	11 1/2	161	.55
8d	2 1/2	10 3/4	106	.50
9d	2 3/4	10 3/4	96	.45
10d	3	9	69	.40
12d	3 1/4	9	63	.35
16d	3 1/2	8	49	.30
20d	4	6	31	.25
30d	4 1/2	5	24	.25
40d	5	4	18	.25
50d	5 1/2	3	14	.25
60d	6	2	11	.25

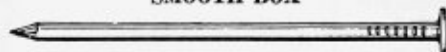
100 pounds in a keg.

GALVANIZED COMMON

Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
4d	1 1/2	12 1/2	316	\$2.80
5d	1 3/4	12 1/2	271	2.70
6d	2	11 1/2	181	2.60
7d	2 1/4	11 1/2	161	2.55
8d	2 1/2	10 3/4	106	2.50
9d	2 3/4	10 3/4	96	2.45
10d	3	9	69	2.40
20d	4	6	31	2.25

100 pounds in a keg.

SMOOTH BOX



Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
2d	1	15 1/2	1010	\$1.65
3d	1 1/4	14 1/2	635	1.15
4d	1 1/2	14	473	1.00
5d	1 3/4	14	406	.90
6d	2	12 1/2	236	.65
7d	2 1/4	12 1/2	210	.60
8d	2 1/2	11 1/2	145	.55
9d	2 3/4	11 1/2	132	.50
10d	3	10 1/2	94	.45
12d	3 1/4	10 1/2	88	.40
16d	3 1/2	10	71	.35
20d	4	9	52	.25

100 pounds in a keg.

STEEL WIRE NAILS

FLOORING BRADS



Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
6d	2	11	157	\$0.65
7d	2 1/4	11	139	.60
8d	2 1/2	10	99	.55
9d	2 3/4	10	90	.50
10d	3	9	69	.45

100 pounds in a keg.

CASING



Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
2d	1	15 1/2	1010	\$1.70
3d	1 1/4	14 1/2	635	1.20
4d	1 1/2	14	473	1.05
5d	1 3/4	14	406	.95
6d	2	12 1/2	236	.70
7d	2 1/4	12 1/2	210	.65
8d	2 1/2	11 1/2	145	.60
9d	2 3/4	11 1/2	132	.55
10d	3	10 1/2	94	.50
12d	3 1/4	10 1/2	87	.45
16d	3 1/2	10	71	.40

100 pounds in a keg.

FINISHING



Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
2d	1	16 1/2	1351	\$2.25
3d	1 1/4	15 1/2	807	1.60
4d	1 1/2	15	584	1.45
5d	1 3/4	15	500	1.35
6d	2	13	309	.80
7d	2 1/4	13	238	.75
8d	2 1/2	12 1/2	189	.65
9d	2 3/4	12 1/2	172	.60
10d	3	11 1/2	121	.55
12d	3 1/4	11 1/2	113	.50
16d	3 1/2	11	90	.45
20d	4	10	62	.35

100 pounds in a keg.

SHINGLE



Galvanized

Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
3d	1 1/4	13	429	\$3.05
4d	1 1/2	12	274	2.80

100 pounds in a keg.

FINE

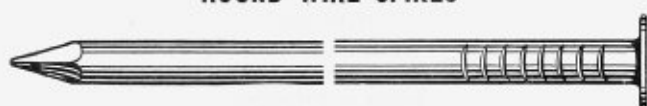


Bright

Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
3d	1 1/4	15	778	\$1.60
3d. Ex. Fine	1 1/4	16	1015	2.15

100 pounds in a keg.

ROUND WIRE SPIKES



Flat Head, Diamond Point

Length, in.	7	8	9	10	12
Diameter, in.	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Number in pound	6	4	3 $\frac{1}{2}$	3	2 $\frac{1}{2}$
Advance over base	\$0.25	.35	.35	.45	.45

100 pounds in a keg.

PLASTER BOARD NAILS

AMERICAN SPECIAL

Blue, Smooth, Long Diamond Point
 $\frac{1}{8}$ Inch Flat Head

Length, in.	Gauge number	Approx. number to pound	Advance over base
$1\frac{1}{8}$	13	448	\$2.20
$1\frac{1}{4}$	13	387	2.10

100 pounds in a keg.

ROOFING NAILS

STANDARD BARBED

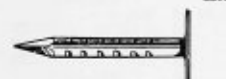


Flat Head, Diamond Point, Bright or Galvanized

Size	Length, in.	Gauge number	Approx. number to pound	Bright Advance over base	Galv. Advance over base
$\frac{3}{4}$	$\frac{3}{4}$	13	714	\$1.55	....
$\frac{7}{8}$	$\frac{7}{8}$	12	469	1.30	\$3.30
1	1	12	411	1.20	3.20
$1\frac{1}{8}$	$1\frac{1}{8}$	12	365	1.10	....
$1\frac{1}{4}$	$1\frac{1}{4}$	11	251	.95	....
$1\frac{3}{8}$	$1\frac{3}{8}$	11	230	.90	....
$1\frac{1}{2}$	$1\frac{1}{2}$	10	176	.80	....
$1\frac{3}{4}$	$1\frac{3}{4}$	10	151	.75	....
2	2	9	103	.65	....

100 pounds in a keg.

LARGE HEAD BARBED

No. 10 Gauge, $\frac{1}{8}$ Inch Head, Bright or Galvanized

Length, in.	Approx. number to pound	Bright Advance over base	Galv'd Advance over base
$\frac{3}{4}$	255	\$1.55	\$....
$\frac{7}{8}$	225	1.45	....
1	210	1.35	....
$1\frac{1}{8}$	185	1.30	....
$1\frac{1}{4}$	170	1.25	....
$1\frac{1}{2}$	155	1.20	....
$1\frac{3}{4}$	135	1.15	....

100 pounds in a keg.

IDEAL

Long Diamond Point



The long sharp point enables the workman to stick the nails in place like a sharp tack and do the work quicker and easier. Copper is mixed with the steel making the nails rust resisting.

 $\frac{1}{8}$ Inch Flat Checked Head

Bright or Galvanized

Length, in.	Gauge No.	Approx. number to pound	Bright per 100 lbs.	Galvanized per 100 lbs.
$\frac{7}{8}$	$10\frac{1}{2}$	222	\$2.10	\$4.10
1	$10\frac{1}{2}$	195	1.90	3.90

100 pounds in a keg.

ROOFING CAPS

Heavy Tin

For use with built-up roofings and sheathings.

Size, inches	Per pound
No. 1— $1\frac{1}{4}$ in. diameter	\$0.15

ROOFING NAILS

SIMPLEX

Heavy Pressed Steel Disc Head, Bright Stem riveted on both sides of head.

Per 100 pounds

Simplex—1 inch long, 1 in. head, No.

12 gauge, approximately 116 to a pound

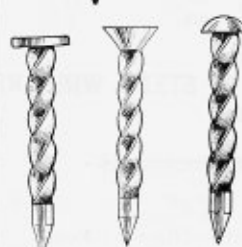
.....\$16.00
100 pounds in a keg.

SCREW NAILS

PARKER-KALON HARDENED

Plain Steel or Cadmium Plated Finish

For fastening sheet metal to wood.



Plain Flat Head Countersunk Flat Head Round Head

Plain Flat Head

Length, in.	Gauge No.	Approx. number to pound	Wt. per 1000, lbs.	Plain steel per 1000	Cadmium plated per 1000
$\frac{3}{4}$	15	1100	1	\$0.90	\$1.00
$\frac{3}{4}$	13	675	$1\frac{1}{2}$	1.00	1.10
$\frac{7}{8}$	13	585	$1\frac{1}{4}$	1.10	1.20
1	12	393	$2\frac{1}{2}$	1.35	1.50
$1\frac{1}{4}$	11	245	4	2.00	2.20
$1\frac{1}{2}$	11	205	5	2.50	2.75
$1\frac{3}{4}$	10	144	7	3.15	3.50
2	10	125	8	3.60	4.00

Countersunk Flat Head

Length, in.	Gauge No.	Approx. number to pound	Wt. per 1000, lbs.	Plain steel per 1000	Cadmium plated per 1000
$\frac{3}{4}$	15	1100	1	\$0.90	\$1.00
$\frac{3}{4}$	14	875	$1\frac{1}{4}$	1.00	1.10
1	14	690	$1\frac{1}{2}$	1.20	1.35
$1\frac{1}{4}$	14	535	2	1.40	1.55
$1\frac{1}{2}$	14	444	$2\frac{1}{4}$	1.60	1.80

Round Head

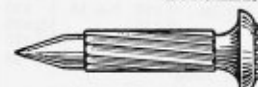
Length, in.	Gauge No.	Approx. number to pound	Wt. per 1000, lbs.	Plain steel per 1000	Cadmium plated per 1000
$\frac{3}{4}$	15	1100	1	\$0.90	\$1.00
$\frac{1}{2}$	14	1200	1	.90	1.00
$\frac{3}{4}$	14	863	$1\frac{1}{4}$	1.00	1.10
1	14	667	$1\frac{1}{2}$	1.20	1.35
*1	13	430	$2\frac{1}{4}$	1.75	1.95

1000 in a box.

* With large round head.

MASONRY NAILS

PARKER-KALON HARDENED



Electro-Galvanized

Expressly designed for making fastenings to brick, mortar, concrete, etc.

Size, in.	Approx. number to pound	Wt. per 100, lbs.	Per 100
$\frac{3}{8}$ x1	125	$\frac{3}{8}$	\$0.51
$\frac{1}{2}$ x1 $\frac{1}{4}$	75	$1\frac{1}{2}$	.65
$\frac{1}{4}$ x1 $\frac{1}{2}$	38	$2\frac{1}{2}$	.95
$\frac{1}{4}$ x2	31	$3\frac{3}{4}$	1.20
$\frac{1}{4}$ x2 $\frac{1}{2}$	25	4	1.44

100 in a box.

MASONRY DRILL PUNCHES

PARKER-KALON



Especially designed for making holes in brick, mortar, etc., where it is necessary in order to start hardened masonry nails.

Size, inches	Per pound
Each	\$0.40

CEMENT COATED WIRE NAILS

SINKERS



Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
3d	1 1/8	15 1/2	848	\$1.90
4d	1 3/8	14	488	1.55
6d	1 7/8	13	275	1.15
8d	2 3/8	11 1/2	142	.75
10d	2 7/8	11	104	.65

100 pounds in a keg.

EGG CASE



Size	Length, inches	Gauge No.	Approx. No. to lb.	Advance Over base
3d	1 1/8	15	738	\$2.15
4d	1 1/2	14	435	1.80

100 pounds in a keg.

STEEL CUT NAILS SHINGLE



Size	Length, in.	Advance over base
4d	1 1/2	\$1.10

100 pounds in a keg.

FLOORING



Size	Length, in.	Advance over base
7d	2 1/4	\$0.75
8d	2 1/2	.65

100 pounds in a keg.

CLINCH



Size	Length, in.	Approx. No. to lb.	Adv. over base
4d	1 1/2	180	\$1.35
5d	1 3/4	140	1.25
6d	2	95	1.10
7d	2 1/4	74	1.05
8d	2 1/2	62	1.00
9d	2 3/4	53	1.00
10d	3	46	.90

100 pounds in a keg.

COPPER WIRE NAILS



5 Pound Boxes

Size	Length, in.	Gauge No.	Approx. No. to lb.	Per pound
2d	1	15	790	\$0.60
3d	1 1/4	14	512	.58
4d	1 1/2	12 1/2	285	.56
5d	1 3/4	12 1/2	244	.54
6d	2	11 1/2	157	.52
8d	2 1/2	10 1/4	95	.50
10d	3	9	62	.48
16d	3 1/2	8	44	.46
20d	4	6	28	.44

COPPER SLATING NAILS

Large Heads, 5 Pound Boxes

Size	Lgth., in.	Ga. No.	App. No. to lb.	Per lb.
2d	1	12	370	\$0.60
3d	1 1/4	10 1/2	203	.55
4d	1 1/2	10 1/2	170	.50

BARBED DOWEL PINS



Headless; Diamond Point

Length, in.	No. 8 Gauge	9/16	7/8	1	1 1/8
Approx. No. to pound.	290	250	210	190	165
Advance over base.	\$1.75	1.50	1.35	1.25	1.15

Length, in.	No. 11 Gauge	1 1/4	1 1/2	1 3/4	1 7/8
Approx. No. to pound.	150	130	120	100	100
Advance over base	\$1.10	1.05	1.00	.90	.90

Length, in.	No. 11 Gauge	3/4	1
Approx. No. to pound.	480		349
Advance over base	\$1.90		1.65

100 pounds in a keg.

WOOD DOWELS



White Birch, Sanded Smooth

Turned true to size, for general wood work repairing, etc. 36 in. long.

Diameter, in.	1/8	1/4	3/8	1/2	5/8
No. in a bundle.	1000	500	500	200	200
Wt. 1000 pieces, lbs.	25	45	70	95	135
Per 1000	\$5.05	6.25	8.05	10.35	12.50

Diameter, in.	1/2	5/8	3/4	7/8	1
No. in a bundle	200	100	100	50	50
Wt. 1000 pieces, lbs.	180	285	390	530	680
Per 1000	\$18.25	23.70	30.55	37.50	43.70

HOOP FASTENERS

Blued



No. 2—1/2 in. long, No. 10 1/2 ga. wire, 308 to a pound	Per pound
	\$0.15

100 pounds in a keg.

HORSE SHOE NAILS

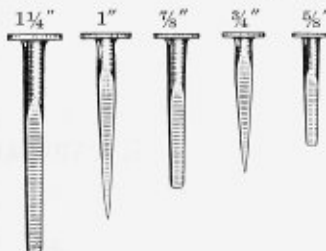
LEADER



Nos.	City Head	7	8	9
Length, in.	2.20	2.37	2.58	
Per pound	\$0.27	.26	.25	

Five pounds in a box.

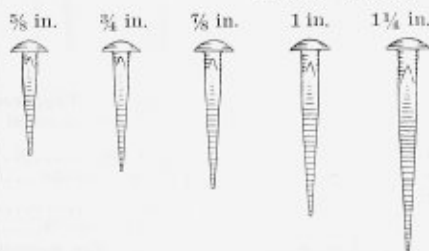
CLOUT NAILS



Blued, In 1 Pound Packages

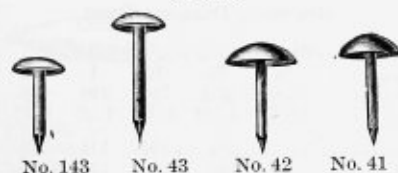
Length, in.	1/2	5/8	3/4	7/8
Per pound.	\$0.39	.38	.37	.36
Length, in.	1	1 1/4	1 1/2	2
Per pound.	\$0.35	.34	.33	.32

TRUNK NAILS



Lgth., in.	1/2	5/8
Per pound.	\$0.41	.40
Lgth., in.	3/4	7/8
Per pound.	\$0.39	.38
Lgth., in.	1	1 1/4
Per pound.	\$0.37	.36
Lgth., in.	1 1/2	2
Per pound.	\$0.35	.34

UPHOLSTERY NAILS BRASS



Gilt Finish				
Nos.	Shank, in.	Box of 50	Box of 100	Box of 1000
143	1/2	\$1.50	\$1.50	\$1.50
43	5/8	1.50	1.50	1.50
42	5/8	1.60	1.60	1.60
41	5/8	2.00	2.00	2.00



Gilt Finish				
Nos.	Shank, in.	Box of 50	Box of 100	Box of 1000
3	1/2	\$2.75	\$3.75	
9	1/2	2.75	3.50	
19 1/2	1/2	2.75	3.50	

1000 in a box.



Gilt Finish				
Nos.	Shank, in.	Diam. head, in.	Box of 1000	Box of 1000
7	1/2	1/2	\$4.00	\$5.75
55	1/2	5/8	5.75	7.00
54	1/2	1 1/2	7.00	8.25
52	1/2	3/4	8.50	10.70
50	1/2	1	12.50	13.75

Nos. 7 and 55, 1000; Nos. 54 and 52, 500; No. 50, 250 in a box.

FURNITURE NAILS METALINE



Broad seat at base prevents edge from cutting the gimp. Enameled heads.

Nos.	Color	Shank, in.	Diam. head, in.	Per 1000
220-3	Maroon	1/2	1/2	\$1.95
220-7	Tan	1/2	1/2	1.95
220-8	Green	1/2	1/2	1.95
220-14	Red	1/2	1/2	1.95

1000 in a box.

THUMB TACKS MOORE



One Piece, Cut-Out; Nickel Plated				
Nos.	Shank, in.	Diam. head, in.	Box of 100	Box of 1000
41	1/2	1/2	\$3.60	3.60
42	1/2	1/2	3.60	3.60
43	1/2	1/2	3.60	3.60

Three dozen tin boxes in a display box.

THUMB TACKS MOORE



Nickel Steel				
Nos.	Shank, in.	Diam. head, in.	Box of 100	Box of 1000
51	1/2	1/2	\$1.35	1.50
52	1/2	1/2	1.50	1.70
53	1/2	1/2	1.70	2.50
54	1/2	1/2	2.50	

100 in a round box, 10 boxes in a carton.

FENCE STAPLES



No. 9 Gauge Steel Wire, Galvanized				
Length, in.	1	1 1/4	1 1/2	1 3/4
No. to pound	108	96	87	72
Per pound	\$0.09	.09	.09	.09

100 pounds in a keg.

POULTRY NETTING STAPLES



No. 14 Gauge Steel Wire, Galvanized				
Length, in.	1	1 1/4	1 1/2	1 3/4
No. to pound	480	416	352	320
1 Lb. Papers	Per lb.	\$0.15	.15	.15
10 Lb. Papers	Per lb.	.13	.13	.13
100 Lb. Kegs	Per lb.	.10	.10	.10

WROUGHT STAPLES



No. 976—Wrought Steel, Plain				
Length, in.	1	1 1/4	1 1/2	1 3/4
Wt. gross, lbs.	3/4	1 1/4	1 1/2	1 3/4
Per gross	\$0.40	.44	.48	.52
Length, in.	2	2 1/4	2 1/2	3
Wt. gross, lbs.	2 1/2	4 3/8	6 1/4	1.10
Per gross	\$0.64	.84	1.10	
Length, in.	3 1/2	4	5	
Wt. gross, lbs.	8 3/4	10 1/4	14 3/4	
Per gross	\$1.28	1.80	3.20	

1 to 2 1/2 in., one gross; others, one-half gross in a box.

ELECTRICIANS' STAPLES



No. 65—Coppered, Round Crown				
Sharp pointed flat steel wire.				
Length, in.	3/8	1/2	5/8	3/4
Per 100 pounds	\$34.00	34.00	34.00	
Length, in.	3/8	1/2	5/8	3/4
Per 100 pounds	\$34.00	34.00		

Ten pounds in a box.

INSULATED STAPLES BLAKE



For use on all low voltage wiring. Fibre insulation under head is of double thickness and will not come off in driving. Copper plated.

Nos.	1	3	5	6	7
Length, in.	1 1/2	3/4	5/8	3/4	3/4
Width, in.	1 1/2	3/4	5/8	3/4	3/4
Wt. per 1000, lbs.	1.6	2.1	2.3	2.5	2.7
Per 100	\$0.30	.35	.35	.40	.40

100 in a carton, 1000 in standard package.

WIRE CLINCH STAPLES



No. 15—Coppered Sharp pointed, flat steel wire.

Length, in.	3/4	1	1 1/4	1 1/2
Per 100 pounds	\$31.30	31.30	30.60	30.60

Ten pounds in a box.

BLIND STAPLES

BARBED

3/8 in.	1/2 in.	5/8 in.	3/4 in.
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No. 25 Coppered, No. 18 Gauge Steel Wire Needle pointed, ratchet barbed.

Length, in.	3/8	1/2	5/8	3/4
Per 100 pounds	\$38.80	38.80	38.80	38.80

Ten pounds in a box.

BARREL OR HOOP STAPLES



No. 61—Flat Steel Wire, Coppered, Sharp Pointed

Size, in.	5/8 x 1/2	5/8 x 3/8	3/4 x 3/4	7/8 x 7/8
Per 100 pounds	\$40.00	40.00	40.00	40.00

Ten pounds in a box.

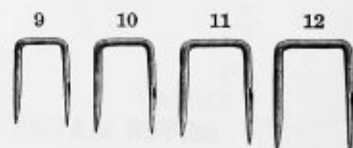
BOX OR CASKET STAPLES

No. 62—Sharp Pointed Flat Steel Wire, Coppered

Size, in.	1 x 3/4	1 1/4 x 7/8	1 1/2 x 7/8
Per 100 pounds	\$40.00	40.00	40.00

Ten pounds in a box.

DOUBLE POINTED TACKS



Tinned, in 1/2 Pound Papers				
Nos.	9	10	11	12
Length, in.	1 1/2	1 1/4	1 1/2	1 1/2
Width, in.	1 1/2	1 1/4	1 1/2	1 1/2
Per dozen papers	\$0.75	.75	.75	.75

One dozen papers in a package.

BRASS ESCUTCHEON PINS



List of April 12, 1923. Price Per Pound

Wire Gauge, No. B. W. G.	1/8	1/4	3/8	1/2	3/4	1
10			.85	.80	.78	.76
11			.95	.87	.84	.82
12		1.15	.98	.93	.90	.87
13		1.20	1.03	.98	.93	.90
14	1.50	1.25	1.05	1.00	.96	.92
15	1.60	1.35	1.15	1.07	1.00	.95
16	1.75	1.45	1.20	1.10	1.03	.99
17	2.00	1.60	1.40	1.25	1.17	1.10
18	2.50	1.90	1.50	1.35	1.27	1.20
19	2.75	2.15	1.75	1.60	1.45	1.35
20	3.00	2.35	2.10	1.95	1.80	1.65
21	3.25	2.75	2.50	2.30		
22	3.50	3.15	2.85	2.60		
24	4.00	3.50	3.10	2.85		

Wire Gauge, No. B. W. G.	3/8	1	1 1/4	1 1/2	1 3/4	2
10	\$0.75	.74	.72	.71	.70	.69
11	.80	.78	.76	.75	.74	.73
12	.85	.83	.79	.77	.76	.75
13	.87	.84	.80	.78		
14	.88	.85	.81	.80		
15	.92	.90	.86	.84		
16	.96	.94	.90	.88		
17	1.04	1.00	.96	.94		
18	1.15	1.10				
19	1.30	1.25				

Approximate Number per Pound—Stock Sizes

Wire Gauge, No. B. W. G.	1/4	3/8	1/2	3/4	1	1 1/4
10		457	362	290	257	229
11		533	450	377	325	287
12	810	640	530	460	386	347
13	1201	870	713	593	510	455
14	1606	1200	962	801	697	601
15	2196	1645	1304	1094	933	817
16	2900	2205	1640	1391	1178	1020
17	3800	2894	2193	1745	1502	1299
18	5445	4000	3126	2522	2127	1915
19	8040	5420	4300	3420	2956	2680
20	10720	8000	6180	5120	4277	

Wire Gauge, No. B. W. G.	1	1 1/4	1 1/2	1 3/4	2
10	203	167	138	111	107
11	250	210	170	151	135
12	311	250	216	183	162
13	396	330	287		
14	526	445	370		
15	730	614	494		
16	909	740	615		
17	1162	937	800		
18	1620				
19	2180				

PAIL AND TUB FASTENERS



No. 3235—Length 2 1/4 in., 160 to a pound.....\$0.30
Open stock.

BOX STRAPPING

ACME DOT EMBOSSED



Cold Rolled Steel, Black Finish
Made of annealed cold rolled strip with two rows of bosses in staggered formation. Easily pierced by nails.

In 300 Foot Coils	1/2	3/4	1	1 1/4	1 1/2
Width, in.	3/4	1	1 1/4	1 1/2	1 3/4
Wt. coil, lbs.	7.6	9.6	11.5	13.4	15.3
Per coil	\$1.00	1.25	1.50	2.00	2.50

1/2 to 3/4 in., 20 coils; others, 10 coils in a case.

CORRUGATED JOINT FASTENERS

DIVERGENT CORRUGATIONS



No. 3320—Saw Edge



No. 3306—Plain Edge

Cold Rolled Steel—Saw Edge or Plain Edge

Depth, Inches	1/4	3/8	1/2	3/4	1	1 1/4
No. Corrugations						
3	\$0.60	.75	.85	1.00	1.15	1.35
4	.75	.95	1.05	1.30	1.45	1.75
5	.90	1.20	1.30	1.70	1.85	2.20
6	1.10	1.40	1.50	1.85	2.15	2.55
7	1.30	1.60	1.80	2.20	2.50	3.00

Note—In ordering specify Style Number as well as Depth and Number of Corrugations.

GLAZIERS' POINTS

TRIANGULAR



Nos.	0	1	2	3	4
Per dozen papers.....	\$1.20	1.20	1.20	1.20	1.20

One dozen papers in a package.

MAZE GLASS TACKS



Dipped in pure zinc, triangular in shape.

Each package contains a point setter which makes it possible to drive points with an ordinary hammer.

1/4 Pound Packages

Nos.	2	3
Wt. per carton, lbs.	1 1/2	1 1/2
Per carton	\$0.60	.60

One dozen packages in a display carton.

RED DEVIL DIAMOND



Cemented Together in Columns

About 100 in a column, ready for use in driver. The most economical and labor saving points.

Nos.	1	2
Length, in.	3/4	1 1/2
For use in machine, No.	1	2
Contents of package	5000	4000
Wt. per package, lbs.	9	14
Per package	\$1.50	2.00

GLAZIERS' POINT DRIVERS

RED DEVIL AUTOMATIC



Has coil spring feed and shoots Diamond Points into the hardest wood. May be operated at any angle, points will not drop out. Red enameled finish.

Nos.	1	2
For Diamond Points Nos.	1	2
Wt. each, lbs.	2 1/2	2 1/2
Each	\$8.75	10.00

One in a carton, with extra driving plate.

MACHINE BOLTS

U. S. THREAD



With Square Heads and Square
Nuts, Finished Points
Standard List Adopted
December 8, 1932

Length, In.	Diameter, Inches						
	1/4	5/16	3/8	1/2	5/8	3/4	1
1 1/2	\$1.30	1.95	2.60	5.00	8.60	10.95	16.70
2	1.50	2.20	2.90	5.35	9.10	11.60	17.60
2 1/2	1.70	2.45	3.20	5.75	9.60	12.25	18.50
3	1.85	2.70	3.50	6.15	10.10	12.90	19.40
3 1/2	2.05	2.95	3.80	6.50	10.60	13.55	20.30
4	2.50	3.15	4.10	6.85	11.10	14.20	21.20
4 1/2	2.65	3.60	4.40	7.25	11.60	14.85	22.10
5	2.80	3.80	4.80	7.65	12.10	15.50	23.00
5 1/2	2.95	4.00	5.10	8.05	12.60	16.15	23.90
6	3.10	4.20	5.40	8.45	13.10	16.80	24.80
6 1/2	3.80	5.10	6.50	10.15	13.60	17.45	25.70
7	4.00	5.35	6.85	10.60	14.10	18.10	26.60
7 1/2	4.15	5.55	7.15	11.05	14.60	18.75	27.50
8	4.35	5.80	7.50	11.50	15.10	19.40	28.40
8 1/2	4.50	6.00	7.80	11.95	15.60	20.05	29.30
9	4.70	6.25	8.15	12.40	16.10	20.70	30.20
9 1/2	4.85	6.45	8.45	12.85	16.60	21.35	31.10
10	5.05	6.70	8.80	13.30	17.10	22.00	32.00
11	5.40	7.15	9.50	14.70	18.10	23.30	33.80
12	5.75	7.60	10.20	15.60	19.10	24.60	35.60
13	.....	.....	11.30	16.50	20.10	25.90	37.40
14	.....	.....	11.95	17.40	21.10	27.20	39.20
15	.....	.....	12.60	18.30	22.10	28.50	41.00
16	.....	.....	13.25	19.20	23.10	29.80	42.80
17	.....	.....	.....	20.10	24.10	31.10	44.60
18	.....	.....	.....	21.00	25.10	32.40	46.40
19	.....	.....	.....	21.90	26.10	33.70	48.20
20	.....	.....	.....	22.80	27.10	35.00	50.00
21	.....	.....	.....	.....	.....	36.30	51.80
22	.....	.....	.....	.....	.....	37.60	53.60
23	.....	.....	.....	.....	.....	38.90	55.40
24	.....	.....	.....	.....	.....	40.20	57.20

NAVAL BRONZE MACHINE BOLTS

CUT THREAD

With Hexagon Heads and Hexagon Semi-finished Brass Nuts,
Finished Points

Price Per 100

Length, In.	Diameter, Inches						
	1/4	5/16	3/8	1/2	5/8	3/4	1
2	\$13.00	15.30	17.45	20.50	23.10	33.80	49.00
2 1/4	13.25	15.70	17.85	21.00	23.70	34.80	.....
2 1/2	13.50	16.10	18.25	21.50	24.30	35.80	51.85
2 3/4	13.75	16.50	18.65	22.00	24.90	36.80	.....
3	14.00	16.90	19.05	22.50	25.50	37.80	54.70
3 1/4	14.25	17.30	19.45	23.00	26.10	38.80	.....
3 1/2	14.50	17.70	19.85	23.50	26.70	39.80	57.55
3 3/4	14.75	18.10	20.25	24.00	27.30	40.80	.....
4	15.00	18.50	20.65	24.50	27.90	41.80	60.40
4 1/2	15.50	19.30	21.45	25.50	29.10	43.80	63.25
5	16.00	20.10	22.25	26.50	30.30	45.80	66.10
5 1/2	16.50	20.90	23.05	27.50	31.50	47.80	68.95
6	17.00	21.70	23.85	28.50	32.70	49.80	71.80

STEP BOLTS

Large Black Heads, Square Nuts,
Finished Point

Standard List Adopted April 1, 1927

Diameter, Inches

Length, Inches	1/4		5/16		3/8	
	Wt. 100, lbs.	Per 100	Wt. 100, lbs.	Per 100	Wt. 100, lbs.	Per 100
1	3.0	\$3.00	5.4	\$4.00	8.2	\$6.00
1 1/4	3.3	3.15	6.2	4.20	8.9	6.25
1 1/2	3.6	3.30	6.6	4.40	9.6	6.50
1 3/4	4.0	3.45	7.1	4.60	10.3	6.75
2	4.3	3.60	7.6	4.80	11.0	7.00
2 1/4	4.7	3.75	8.2	5.00	11.8	7.25
2 1/2	5.0	3.90	8.7	5.20	12.5	7.50
2 3/4	5.3	4.05	9.2	5.40	13.3	7.75
3	5.6	4.20	9.7	5.60	14.0	8.00
3 1/4	6.0	4.35	10.2	5.80	14.7	8.25
3 1/2	6.3	4.50	10.8	6.00	15.3	8.50
3 3/4	6.7	4.65	11.4	6.20	16.0	8.75
4	7.0	4.80	12.0	6.40	16.7	9.00

CARRIAGE BOLTS

U. S. THREADS



With Oval Heads and Square Nuts
Standard List Adopted December 8, 1932

Price Per 100

Length, In.	Diameter, Inches						
	1/4 & 5/16	3/8	1/2	5/8	3/4	1	1 1/4
1	\$1.10	1.65	2.10	3.50	.....	.....	.....
1 1/4	1.15	1.70	2.20	3.60	.....	.....	.....
1 1/2	1.20	1.80	2.35	3.75	.....	.....	.....
2	1.35	2.00	2.60	4.05	.....	.....	.....
2 1/2	1.55	2.25	2.90	4.40	5.35	9.60	13.75
3	1.70	2.50	3.20	4.75	5.75	10.10	14.40
3 1/2	1.85	2.75	3.50	5.10	6.15	10.60	15.05
4	2.30	2.95	3.80	5.40	6.55	11.10	15.70
4 1/2	2.45	3.40	4.10	5.75	6.95	11.60	16.35
5	2.60	3.60	4.50	6.10	7.35	12.10	17.00
5 1/2	2.75	3.85	4.80	6.45	7.80	12.60	17.65
6	2.90	4.05	5.10	6.80	8.20	13.10	18.30
6 1/2	3.65	4.90	6.30	8.25	9.75	13.60	18.95
7	3.85	5.15	6.65	8.70	10.20	14.10	19.60
7 1/2	4.00	5.35	6.95	9.15	10.65	14.60	20.25
8	4.20	5.60	7.30	9.60	11.10	15.10	20.90
8 1/2	4.35	5.80	7.60	10.05	12.05	15.60	21.50
9	4.55	6.05	7.95	10.50	12.50	16.10	22.20
9 1/2	4.70	6.25	8.25	10.95	12.95	16.60	22.85
10	4.90	6.50	8.60	11.40	13.40	17.10	23.50
11	5.25	6.95	9.30	12.25	14.30	18.10	24.80
12	5.60	7.40	10.00	13.10	15.20	19.10	26.10
13	6.15	8.05	11.10	14.40	16.10	20.10	27.40
14	6.45	8.50	11.75	15.25	17.00	21.10	28.70
15	6.80	8.95	12.40	16.20	17.90	22.10	30.00
16	7.10	9.40	13.05	17.10	18.80	23.10	31.30
17	7.45	9.85	13.70	18.00	19.70	24.10	32.60
18	7.75	10.30	14.35	18.90	20.60	25.10	33.90
19	8.10	10.75	15.00	19.80	21.50	26.10	35.20
20	8.45	11.20	15.65	20.70	22.40	27.10	36.50

NAVAL BRONZE CARRIAGE BOLTS

CUT THREAD

With Oval Heads and Hexagon Semi-Finished Brass Nuts,
Finished Points

Price Per 100

Length, In.	Diameter, Inches						
	1/4	5/16	3/8	1/2	5/8	3/4	1
1 1/2	\$12.00	14.50	16.00	20.00	.....	.....	.....
2	12.50	15.30	16.80	21.00	23.00	.....	.....
2 1/2	13.00	16.10	17.60	22.00	24.30	42.50	.....
3	13.50	16.90	18.40	23.00	25.60	44.50	.....
3 1/2	14.00	17.20	19.20	24.00	26.90	46.50	.....
4	14.50	18.00	20.00	25.00	28.20	48.50	.....
4 1/2	15.00	18.80	21.80	26.00	29.50	50.50	.....
5	15.50	19.60	22.60	27.00	30.80	52.50	.....
5 1/2	16.00	20.40	23.40	28.00	32.10	54.50	.....
6	16.50	21.20	24.20	29.00	33.40	56.50	.....
7	18.00	23.20	26.20	31.50	36.40	61.50	.....
8	19.50	25.20	28.20	34.00	39.40	66.50	.....

SINK BOLTS



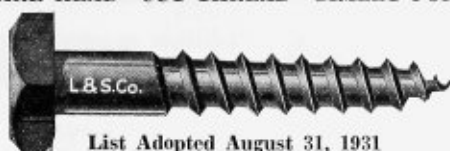
With Two Square Nuts

Size, inches	Iron		Nickel Plated Brass	
	Wt. 100, lbs.	Per 100	Wt. 100, lbs.	Per 100
1/4x2	3.8	\$2.50	3.9	.....
1/4x2 1/4	4.0	2.60	4.2	\$3.50
1/4x2 1/2	4.2	2.70	4.5	.....

One hundred in a box.

LAG SCREWS

SQUARE HEAD—CUT THREAD—GIMLET POINTS



List Adopted August 31, 1931
Price Per 100

Length, in.	Diameter, inches							
	$\frac{1}{4}$ & $\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
1	\$2.35	2.85	4.25	5.25	7.95	12.50	18.00	28.40
1½	2.15	2.60	3.90	4.85	7.40	11.75	18.00	28.40
2	2.35	2.85	3.90	4.85	7.40	11.75	18.00	28.40
2½	2.55	3.10	3.90	4.85	6.85	11.00	17.60	27.10
3	2.80	3.40	4.30	5.30	7.50	11.90	16.80	26.05
3½	3.05	3.70	4.70	5.75	8.15	12.80	18.00	25.00
4	3.30	4.00	5.10	6.20	8.80	13.70	19.20	26.55
4½	3.55	4.30	5.50	6.65	9.45	14.60	20.40	28.10
5	3.80	4.65	5.90	7.10	10.10	15.50	21.60	29.65
5½	4.05	5.00	6.30	7.55	10.75	16.40	22.80	31.20
6	4.35	5.35	6.70	8.00	11.40	17.30	24.00	32.75
6½	4.65	5.70	7.10	8.45	12.05	18.20	25.20	34.30
7	4.95	6.05	7.50	8.90	12.70	19.10	26.40	35.85
7½	5.25	6.40	7.90	9.35	13.35	20.00	27.60	37.40
8	5.55	6.75	8.30	9.80	14.00	20.90	28.80	38.95
9	6.15	7.45	9.10	10.70	15.20	22.65	31.00	41.80
10	6.75	8.15	9.90	11.60	16.40	24.40	33.20	44.65
11	7.35	8.90	10.80	12.60	17.70	26.25	35.50	47.65
12	7.95	9.65	11.70	13.60	19.00	28.10	37.90	50.75
13	8.55	10.35	12.60	14.60	20.30	29.95	40.50	54.25
14	9.15	11.05	13.60	15.60	21.60	31.85	43.10	57.75
15	9.75	11.75	14.60	16.60	22.90	33.75	45.75	61.35
16	10.35	12.45	15.60	17.60	24.20	35.65	48.40	64.95

STOVE RODS



Round Head

Flat Head

Round or Flat Head
Price Per 100

Length, in.	Round Head		Flat Head	
	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
8	\$2.35	3.20	2.15	2.80
10	2.60	3.65	2.35	3.20
12	2.85	4.10	2.55	3.60
18	3.65	5.45	3.20	4.80
24	4.45	6.80	3.85	6.00

OVEN BOLTS



Round Head, Square Nuts
Diameter, inches

Lgth., in.	$\frac{1}{2}$		$\frac{3}{4}$	
	Wt. 100 lbs.	Per 100	Wt. 100 lbs.	Per 100
½	1½	\$0.70	1½	\$1.12
¾	1½	.76	2½	1.25
1	1½	.83	2½	1.38
1¼	1½	.90	2½	1.51
1½	2½	1.01	3	1.64
2	2½	1.27	...	...

HANGER LAG SCREWS



With Pipe Thread

Nos.	1	2	3
Pipe thread, in.	½	¾	1
Each	\$0.10	.12	.14
100 in a box.			

IRON STOVE BOLTS FLAT OR ROUND BOLTS



Flat Head

Round Head

Square Nuts
Standard List Adopted May 1, 1934
List Price Per 100

Lgth., in.	Diameter, inches							
	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1
¾	\$0.57	.57	.67	1.12	1.12	1.12	1.12	1.12
1	.60	.60	.70	1.18	1.18	1.18	1.18	1.18
1½	.63	.63	.73	1.25	2.12	2.90	3.00	3.00
2	.66	.66	.76	1.31	2.20	3.00	3.00	3.00
2½	.68	.68	.79	1.38	2.27	3.10	8.80	8.80
3	.71	.71	.83	1.44	2.34	3.20	9.00	9.00
3½	.76	.76	.86	1.51	2.41	3.30	9.20	9.20
4	.80	.80	.90	1.57	2.50	3.40	9.40	9.40
4½	.84	.84	.96	1.64	2.59	3.50	9.60	9.60
5	.89	.89	1.01	1.70	2.77	3.75	10.00	10.00
5½	1.00	1.00	1.12	1.80	3.00	4.00	10.50	10.50
6	1.11	1.11	1.27	1.98	3.20	4.25	11.10	11.10
6½	1.41	1.41	1.59	2.34	3.45	4.55	11.70	11.70
7	1.77	1.77	2.55	3.70	4.80	12.30	12.30	12.30
7½	1.95	1.95	2.75	3.95	5.20	13.00	13.00	13.00
8	2.25	2.25	3.10	4.40	5.80	14.40	14.40	14.40
8½	2.55	2.55	3.45	4.85	6.40	15.80	15.80	15.80
9	2.85	2.85	3.80	5.30	7.00	16.00	16.00	16.00
9½	3.15	3.15	4.15	5.75	7.60	16.00	16.00	16.00
10	3.45	3.45	4.50	6.20	8.20	16.00	16.00	16.00
10½	3.75	3.75	4.85	6.65	8.80	16.00	16.00	16.00

½, ¾, 1, 1½ and 2 in. diameter to 2½ in., 100 in a package.
 1½ in. 3 to 6 inch, 50 in a package.
 ¾ in. ¾ to 2 inch, 100 in a package.
 1 in. 2½ to 5 inch, 50 in a package.
 1½ in. 1 to 2 inch, 50 in a package.
 2 in. 2½ to 4 inch, 25 in a package.

STOVE BOLT ASSORTMENTS

No. 100 Assortment—Contains 100 assorted stove bolts....\$1.50		Per assortment
Flat Head	Round Head	
10 each ½x¾, 1.	10 each ½x½, ¾, 1.	
10 each ¾x¾, 1.	10 each ¾x¾, 1, 1½.	
One assortment in a box.		

ELEVATOR BOLTS COUNTERSUNK OR OVAL HEADS



No. 1 Countersunk Head.

No. 2 Oval Head

Square Nuts, Finished Points
Price Per 100

Length, inches	Diameter, inches			
	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
¾	\$3.30	3.30	4.50	6.00
1	3.45	3.45	4.75	6.40
1½	3.45	3.45	4.75	6.40
2	3.60	3.60	5.00	6.80
2½	3.75	3.75	5.25	7.20
3	3.90	3.90	5.50	7.60
3½	4.05	4.05	5.75	8.00

No. 2 Oval Head

Length, inches	Diameter, inches			
	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
¾	\$3.30	3.30	4.50	6.00
1	3.45	3.45	4.75	6.40
1½	3.45	3.45	4.75	6.40
2	3.60	3.60	5.00	6.80
100 in a box.				

LAG SCREW EXPANSION SHIELDS

NEW DIAMOND

Long Standard

Made of high grade malleable iron, galvanized. Composed of two halves—one side threaded to fit standard lag screws and

one side unthreaded. Gives parallel expansion with full cylindrical contact from end to end.

For screw, in.	Length shield, in.	O.S. diam. shield, in.	Qty. in box	Wt. per 100, lbs.	Per 100
1/4	1 1/2	1/2	100	4 1/2	\$15.00
5/8	1 3/4	1/2	100	5	18.00
3/4	2 1/4	5/8	100	10	25.00
1 1/2	3	3/4	100	16	38.00
5/8	3 1/2	7/8	100	21	45.00
3/4	3 1/2	1	100	24	65.00

MACHINE BOLT EXPANSION SHIELDS

LOXIN

Long Standard

Steel, hot galvanized. Without machine bolts.

Nos.	For bolt, in.	Length shield, in.	O.S. diam. shield, in.	Qty. in box	Wt. 100, lbs.	Per 100
3615	1/4	1 1/4	1/2	100	3 1/2	\$15.00
3620	5/8	2	5/8	100	7 1/2	18.00
3625	3/4	2	5/8	100	7 1/2	25.00
3630	1 1/2	2 1/2	7/8	50	16 1/2	32.00
3635	1 1/2	2 1/2	7/8	50	16 1/2	38.00
3645	5/8	3	1	25	26	45.00
3655	3/4	3 1/2	1 1/4	25	36	65.00

KEYSTONE INTERLOCKING

Double

Made of malleable iron. When the maximum limit of expansion has been reached the nut cannot travel farther, prevents nut being drawn out under load



INTERLOCKING KEY

For bolt, in.	Length shield, in.	O.S. diam. shield, in.	Qty. in box	Wt. 100, lbs.	Per 100
1/4	1 1/2	1/2	100	6	\$15.00
5/8	1 3/4	1/2	100	7	18.00
3/4	2	5/8	100	11	25.00
1 1/2	2 1/2	7/8	100	16	32.00
5/8	2 3/4	7/8	100	20	38.00
3/4	3 1/4	1	100	29	45.00
1	4 1/4	1 1/8	100	52	65.00
1 1/4	6	1 1/2	100	88	95.00
1 1/2	7 1/2	2 1/8	100	114	110.00
		2 1/2	100	300	250.00
		2 1/2	100	450	350.00

FORWAY

No. 118—Open Back Type, Malleable Iron Without machine bolts.



For bolt, in.	Length shield, in.	Drill size, in.	Qty. in box	Wt. per 100, lbs.	Per 100
1/4	1 1/2	1/8	100	1 1/2	\$15.00
5/8	1 3/4	1/8	100	4	15.00
3/4	1 3/4	1/8	100	5	18.00
1 1/2	2 1/2	5/8	100	6 1/2	25.00
5/8	2	3/4	100	12 1/2	32.00
3/4	2 1/2	7/8	100	18	38.00
1	2 3/4	1	50	26	45.00
1 1/4	3 1/4	1 1/4	50	50	65.00
1 1/2	4 1/2	1 1/2	25	100	95.00
1	5	1 5/8	25	115	110.00

SCREW ANCHORS
DIAMOND MULTI-SIZE

Designed to accommodate in one anchor several diameters of wood screws. Without screws.

Length, in.	Drill size, in.	For wood screws, Nos.	Wt. per 100, lbs.	Per 100
3/4	1/4	6 to 8	1	\$5.00
1 1/2	1/4	6 to 8	1 1/4	5.60
3/4	5/8	10 to 14	1 1/2	5.60
1	5/8	10 to 14	2	5.60
1 1/2	5/8	10 to 14	2 3/4	8.00
1	3/4	16 to 18	3	6.25
1 1/2	3/4	16 to 18	4 1/4	9.00
1 3/4	3/4	20 to 24	5 1/4	10.00

100 in a box.

ACKERMAN-JOHNSON EXPANSIVE



Can be Installed in a Shallow Hole

For use with machine screws or bolts. Unequalled for electrical installation and all similar attachments in concrete, brick and stone. Their holding power exceeds the tensile strength of the best steel screw or bolt of corresponding size. Instantly installed without the aid of the screw and before fixture is lifted into position. No danger of cracking or splitting material. Great holding power.

Knurled piloted setting punch packed in each box. Without screws.

Bolt or screw, in.	Dim. of min. holes required, inches	Wt. 100, lbs.	Per 100
	Diam. Depth		
6-32	1/4 3/8	3/4	\$3.80
8-32	1/4 1/2	1 1/2	4.50
10-24	3/8 5/8	2 1/4	4.95
12-24	1/2 3/4	3 3/4	6.50
1/4-20	1/2 7/8	5	7.20
5/8-18	3/4 1	9 1/2	9.75
3/4-16	3/4 1 1/4	16	12.00
7/8-14	7/8 1 1/2	23	15.00
1 1/2-13	1 1/2 2	22	15.00
5/8-11	1 1/2 2	51	25.00

50 or 100 in a box.

PILOTED SETTING PUNCHES

ACKERMAN-JOHNSON



For use with Ackerman-Johnson Expansive Screw anchors. Knurled.

Ackerman-Johnson—For all sizes.....\$0.50

RAWL-ANCHORS

For Bolts

A one-piece, heavy-duty, double expanding, double-ended masonry anchor.

Zinc and lead alloy anchor, with its scientifically designed and patented double cone construction, has a holding power in excess of any two-unit anchor. Bolt cannot turn in hole after being caulked with a Rawl-Anchor. Without bolts.

Diam. of bolt, in.	Per 100	Type bolt head	Size hole drill, in.	Min. depth hole, in.	Qty. in box	Wt. per 100, lbs.
1/4	\$6.00	Sq.	1/2	1	100	4
5/8	6.75	Sq.	5/8	1 1/4	100	8
3/4	8.25	Sq.	3/4-1 1/8	1 3/4	100	12
1 1/2	13.50	Sq.	1	2	50	30
5/8	18.00	Hex.	1 1/8	2 1/4	50	38
3/4	26.50	Hex.	1 1/4-1 3/8	2 1/2	25	50
1 1/2	33.00	Hex.	1 1/2	2 3/4	20	80
1	47.25	Hex.	1 5/8-1 3/4	3	20	86

RAWLPLUGS

FIBRE SCREW ANCHORS



Made of stiffened strands of tough jute fibre compressed together. Holds fast in wood, masonry, glass, plaster, metal or any material. Without screws.

Price Per 100

Wood screw Nos.	Length, in.	1 1/4	1 1/2	2
6	\$1.25	1.30	1.45	1.60
8	1.50	1.60	1.80	2.00
10	1.80	2.05	2.30	2.55
12	2.20	2.45	2.70	2.95
14	2.60	2.90	3.20	3.50
16	3.00	3.30	3.60	3.90
20	4.00	4.30	4.60	4.90

Nos. 6 to 14, 100 in a box; Nos. 16 and 20, 50 in a box.

Lag screw size, in.	Length, in.	1 1/2	2	3	3 1/2
3/8	\$6.50	7.50	8.50	9.50	10.50
1/2	7.00	8.50	10.00	11.50	13.00
3/4	10.00	11.50	13.00	14.50	16.00
1	13.50	15.00	16.50	18.00	19.50

Note—For 1/4 in. Lag Screw use No. 14 or 16; for 3/8 in. Lag Screw use No. 20. Prices on special sizes or lengths quoted upon request.

RAWLPLUG OUTFITS

Each Contractors' Outfit—450 popular size Rawlplug, 14 corresponding size Rawlplug, and Rawlplug and Screw Gage in heavy gage steel tool kit.....\$20.00

Household Outfit—A neat tin box containing No. 8 Rawlplugs, nickel plated screws and screw eyes, Rawlplug, etc..... .50 One dozen outfits in a display carton.

RAWLDRILLS



Machine Type for Hand Drilling

High grade tool steel; accurately forged and heat treated. Can be resharpened on grinding wheel.

Size Nos.	Diam., in.	Holder No.	used Wt. doz. lbs.	Drills per doz.	Holders per doz.
6	3/8	14	1/4	\$ 6.00	\$ 9.00
8	1/2	14	1/4	6.00	9.00
10	3/4	14	1/4	6.00	9.00
12	1	14	1/2	6.00	9.00
14	1 1/4	14	1/2	6.60	9.00
16	1 1/2	20	3/4	7.20	12.00
20	2	20	1	8.40	12.00
2 1/8	2 1/8	20	1	10.80	12.00

One dozen in a box.

DRILL HOLDERS

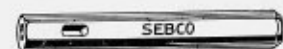
STAR

For Large Shank Drills

Knockout pin furnished gratis with each holder.



No. 5200



No. 1400

No. 5200—Rubber grip; wt. per dozen 12 lbs.....\$48.00
No. 1400—Plain; wt. per dozen 9 1/2 lbs..... 24.00
One dozen in a box.

MASONRY DRILL POINTS

HAMRTWIST



Large Shank

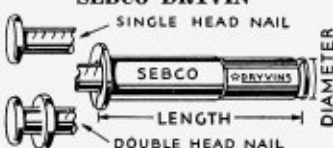
A fast and easy cutting tool giving a round and uniform hole in concrete, brick or stone.

Nos.	Diam., in.	Wt. doz., lbs.	Per doz.
4210	1 1/8	1 1/2	\$5.40
4215	1 1/4	1 1/2	5.40
4220	1 1/2	1	6.40
4225	1 3/8	1 1/2	7.40
4235	1 1/2	2 1/4	11.40

One dozen in a box.

NAIL ANCHORS

SEBCO DRYVING



Hot Galvanized

With Single Head or Double Head Nails

Nos.	Lgth., in.	Drill size, in.	Work'g load, lbs.	Wt. per 100 lbs.	Per 100
3910	1 1/4	3/8	60	1.2	\$ 8.00
3911	1 1/4	3/8	100	1.6	9.00
3915	1 1/4	3/8	200	2	10.00
3916	1 1/4	3/8	250	2 1/2	11.00
3917	1 1/2	3/8	300	3	12.00
3920	1 1/2	3/8	250	4	14.00
3921	1 1/2	3/8	300	5	16.00
3923	2 1/4	3/8	300	6 1/2	18.00
3924	2 3/4	3/8	300	7 1/2	20.00
3926	1 1/2	3/8	400	7 1/2	18.00
3927	2	3/8	450	9	20.00
3929	3 1/4	3/8	500	12	25.00
3935	1	1/2	200	9	25.00
3937	2 1/4	1/2	500	15 1/2	30.00
3938	2 3/4	1/2	550	19	32.00
3939	3 1/2	1/2	600	22	35.00

Nos. 3910 to 3927, 100; No. 3935, 100; balance 50 in a package.

TOGGLE BOLTS

DIAMOND

Size, in.	Wt., lbs.	Per 100	Per 100
1/4 x 3	3	\$ 9.00	3
1/4 x 4	3 1/2	10.00	3 1/2
1/4 x 5	5	9.50	5
1/4 x 6	6 1/2	12.00	6
1/4 x 7	7 1/2	12.50	7
1/4 x 8	7 1/2	10.50	8
1/4 x 9	11.75	8 1/2	11.75
1/4 x 10	13.00	9	13.00
1/4 x 11	14.00	11 1/2	14.00
1/4 x 12	17.50	12 1/2	17.50
1/4 x 13	18.00	13 1/2	18.00
1/4 x 16	20.00	15 1/2	20.00
1/4 x 19	20.00	19	20.00
1/4 x 22 1/2	24.00	22	24.00
1/4 x 27	31.00	25	31.00
1/4 x 31	30.00	.....	.....
1/4 x 35	32.00	.....	.....
1/4 x 44	36.00	.....	.....

100 in a box.

No. 5 Toggle Heads Only

Diam. in.	Drill size, in.	Wt. per 100, lbs.	Per 100
1/4	3/8	1 1/2	\$ 6.50
3/8	1/2	2 1/2	7.50
1/2	3/4	3	10.00
3/4	1	9	15.00
1	1 1/4	9	17.00



No. 5

TOGGLE BOLTS

SPRING

Round or Flat Head



The resilient wings are made of tempered spring steel with a cam action against the saddle which throws them to open position.

All toggle threads are National standard thread, not stove bolt thread.

No.	Size, in.	Drill size, in.	No. in box	Wt. per 100, lbs.	Per 100
5506	1/8 x 2	3/8	100	1 1/2	\$ 6.50
5507	1/8 x 3	3/8	100	1 3/4	6.75
5508	1/8 x 4	3/8	100	2	7.00
5510	1/8 x 3	1/2	100	3	6.85
5511	1/8 x 4	1/2	100	4	7.15
5512	1/8 x 5	1/2	100	5	7.50
5513	1/8 x 6	1/2	100	5 1/2	7.80
5515	1/4 x 3	5/8	100	6	7.85
5516	1/4 x 4	5/8	100	7	8.15
5517	1/4 x 5	5/8	100	8	8.55
5518	1/4 x 6	5/8	100	9	8.95
5520	1/2 x 3	7/8	100	10	9.85
5521	1/2 x 4	7/8	100	12	10.15
5523	1/2 x 6	7/8	100	15	10.95
5525	3/8 x 3	7/8	100	13	11.50
5526	3/8 x 4	7/8	100	15	13.50
5528	3/8 x 6	7/8	100	20 1/2	16.50
5536	1/2 x 4	1 1/8	25	27	20.00
5538	1/2 x 6	1 1/8	25	36	23.00

Toggle Heads Only

Size, in.	Drill size, in.	No. in stock	Wt. per 100, lbs.	Per 100
5506-H	1/8	1/2	1	\$ 6.25
5510-H	1/8	1/2	2	6.25
5515-H	1/4	Open	2	6.50
5520-H	1/4	stock	3	8.20
5525-H	3/8	7/8	3 1/2	10.00
5535-H	1/2	1 1/8	4	15.00

THREADED BRASS RODS



Cut Thread, Continuous Lengths

Threads	Lgth., in.	Per 100 ft.	Threads	Lgth., in.	Per 100 ft.
6-32	1	\$5.00	14-20	2	\$10.00
8-32	2	5.50	14-28	2	10.00
10-32	2	7.00	14-32	2	10.00
10-24	2	7.00	14-18	2	18.00
12-24	2	8.50	14-16	2	28.00

TEE BOLTS

DIAMOND Pipe Thread

Patent malleable iron. For use with hollow bricks, can also be used on wire lath ceilings.



Pipe size, in..... 1/4 1/2 3/4
Each\$0.35 .35

FAUCET SCREWS

Brass, Assorted

Per assortment No. 2058—Consists of one gross of 8 assorted sizes in friction top can; wt. per assortment 1/2 lb.....\$1.25

Open stock.



STEEL CAP SCREWS HEXAGON HEAD

List Adopted August 1, 1936

Price Per 100



Coarse U.S.S. Thread

Fine S. A. E. Thread

Width Head Across Flats	Max.	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Min.	.428	.480	.561	.612	.737	.798	.860	.983	1.106	1.292
Ht. of Head	Nom.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	.194	.242	.289	.337	.385	.433	.481	.526	.572	.618
	.181	.227	.273	.319	.365	.411	.457	.503	.549	.595
Threads per Inch	Coarse (U.S.S.)	20	18	16	14	13	12	11	10	9
Threads per Inch	Fine (S.A.E.)	28	24	24	20	20	18	18	16	14
Min. Body Dia. of Sc'w	Coarse	.2438	.3059	.3684	.4303	.4928	.5543	.6168	.741	.8632
	Fine	.2428	.3043	.366	.4277	.4896	.5513	.6132	.7372	.861
Diameter of Screw		$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$
Length in inches under Head to Extreme Point	$\frac{1}{4}$	\$1.30	1.50	1.90	2.30	2.70	3.10	3.50	3.90	4.30
	$\frac{1}{2}$	1.35	1.60	2.00	2.40	2.80	3.20	3.60	4.00	4.40
	$\frac{3}{8}$	1.40	1.70	2.10	2.50	2.90	3.30	3.70	4.10	4.50
	$\frac{1}{2}$	1.50	1.80	2.20	2.60	3.00	3.40	3.80	4.20	4.60
	1	1.60	1.90	2.30	2.70	3.10	3.50	3.90	4.30	4.70
	$1\frac{1}{4}$	1.80	2.10	2.50	2.90	3.30	3.70	4.10	4.50	4.90
	$1\frac{1}{2}$	2.00	2.30	2.70	3.10	3.50	3.90	4.30	4.70	5.10
	$1\frac{3}{4}$	2.20	2.50	2.90	3.30	3.70	4.10	4.50	4.90	5.30
	2	2.40	2.70	3.10	3.50	3.90	4.30	4.70	5.10	5.50
	$2\frac{1}{4}$	2.60	2.90	3.30	3.70	4.10	4.50	4.90	5.30	5.70
	$2\frac{1}{2}$	2.80	3.10	3.50	3.90	4.30	4.70	5.10	5.50	5.90
	$2\frac{3}{4}$	3.00	3.30	3.70	4.10	4.50	4.90	5.30	5.70	6.10
	3	3.20	3.50	3.90	4.30	4.70	5.10	5.50	5.90	6.30
	$3\frac{1}{4}$	3.40	3.70	4.10	4.50	4.90	5.30	5.70	6.10	6.50
	$3\frac{1}{2}$	3.60	3.90	4.30	4.70	5.10	5.50	5.90	6.30	6.70
	$3\frac{3}{4}$	3.80	4.10	4.50	4.90	5.30	5.70	6.10	6.50	6.90
	4	4.00	4.30	4.70	5.10	5.50	5.90	6.30	6.70	7.10
	$4\frac{1}{4}$	4.20	4.50	4.90	5.30	5.70	6.10	6.50	6.90	7.30
	$4\frac{1}{2}$	4.40	4.70	5.10	5.50	5.90	6.30	6.70	7.10	7.50
	$4\frac{3}{4}$	4.60	4.90	5.30	5.70	6.10	6.50	6.90	7.30	7.70
	5	4.80	5.10	5.50	5.90	6.30	6.70	7.10	7.50	7.90
	$5\frac{1}{4}$	5.00	5.30	5.70	6.10	6.50	6.90	7.30	7.70	8.10
	$5\frac{1}{2}$	5.20	5.50	5.90	6.30	6.70	7.10	7.50	7.90	8.30
	$5\frac{3}{4}$	5.40	5.70	6.10	6.50	6.90	7.30	7.70	8.10	8.50
	6	5.60	5.90	6.30	6.70	7.10	7.50	7.90	8.30	8.70
Add for each $\frac{1}{4}$ in.		.70	.80	.90	1.00	1.20	1.50	2.00	2.70	4.50

Length of usable thread on fine thread screws $1\frac{1}{2}$ x Body diameter + $\frac{1}{4}$ in.
Length of usable thread on Coarse thread screws 2 x Body diameter + $\frac{1}{4}$ in.
Screws too short to apply formula are threaded as close to head as practicable.

All orders should specify whether coarse or fine thread.

Number in a box.

$\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{8}$ inch diameter; lengths to 2 in., inclusive	100
$\frac{1}{2}$, $\frac{3}{4}$ and $\frac{1}{2}$ inch diameter; balance	50
1 inch diameter; lengths to 3 in., inclusive	50
1 inch diameter; lengths $3\frac{1}{4}$ to 4 in., inclusive	25
and $\frac{1}{2}$ inch diameter; lengths to 2 in., inclusive	50
and $\frac{1}{2}$ inch diameter; lengths $2\frac{1}{4}$ to $4\frac{1}{2}$ in., inclusive	25
1 inch diameter; lengths to 1 in., inclusive	50
1 inch diameter; lengths 2 to 3 in., inclusive	25
1 inch diameter; lengths to $\frac{3}{4}$ in., inclusive	25
1 inch diameter; lengths 4 to 5 in., inclusive	25
1 inch diameter; lengths to $\frac{1}{2}$ in., inclusive	25
1 inch diameter; lengths 3 to 6 in., inclusive	15
1 inch diameter; lengths to 4 in., inclusive	15
1 inch diameter; lengths $4\frac{1}{2}$ to 6 in., inclusive	20

FLAT HEAD

Coarse U.S.S. Thread

List Adopted Feb. 1, 1924

Price per 100

Dia. of Hd.	Max.	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Min.	.477	.598	.719	.780	.841	.962	1.083	1.326
Height of Head	.146	.183	.220	.220	.220	.256	.293	.366
Threads per In.	20	18	16	14	13	12	11	10
Min. Dia. Screw	.2428	.3043	.366	.4277	.4896	.5513	.6132	.7372
Diam. of Screw		$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Length in inches over all	$\frac{1}{4}$	\$2.70	3.00	3.75	4.50	5.25	6.00	6.75
	1	3.05	3.35	4.15	5.30	6.45	7.60	8.75
	$1\frac{1}{4}$	3.35	3.65	4.45	5.65	6.85	8.05	9.25
	$1\frac{1}{2}$	3.65	3.90	4.80	6.05	7.35	8.65	9.95
	$1\frac{3}{4}$	3.80	4.10	5.20	6.50	7.80	9.10	10.40
	2	4.00	4.35	5.60	6.90	8.30	9.60	10.90
	$2\frac{1}{4}$	4.15	4.65	6.00	7.50	9.00	10.50	12.00
	$2\frac{1}{2}$	4.35	4.95	6.40	8.05	9.75	11.50	13.25
	$2\frac{3}{4}$	4.55	5.25	6.80	8.60	10.50	12.40	14.30
	3	4.75	5.55	7.20	9.15	11.20	13.30	15.40

Number in a box.

$\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{8}$ inch diameter; lengths to 2 in., inclusive	100
$\frac{1}{2}$, $\frac{3}{4}$ and $\frac{1}{2}$ inch diameter; balance	50
1 inch diameter; lengths to 3 in., inclusive	50
1 inch diameter; lengths $3\frac{1}{4}$ to 4 in., inclusive	25
1 inch diameter; lengths to $\frac{1}{2}$ in., inclusive	25
1 inch diameter; lengths 2 to 3 in., inclusive	25
1 inch diameter; lengths to 4 in., inclusive	15
1 inch diameter; lengths $4\frac{1}{2}$ to 6 in., inclusive	20

STEEL CAP SCREWS BUTTON HEAD



Coarse U.S.S. Thread—List Adopted Feb. 1, 1924

Price per 100

Diam. Head, In.	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Threads to Inch	20	18	16	14	13	12	11
Dia. Screw, In.	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$
Length under head to extreme points, inches.	$\frac{1}{4}$	\$2.70	3.00	3.75	4.90	6.05	7.20
	1	3.05	3.35	4.15	5.30	6.50	7.70
	$1\frac{1}{4}$	3.35	3.65	4.45	5.65	6.85	8.05
	$1\frac{1}{2}$	3.65	3.90	4.80	6.05	7.35	8.65
	$1\frac{3}{4}$	3.80	4.10	5.20	6.50	7.80	9.10
	2	4.00	4.35	5.60	6.90	8.30	9.60
	$2\frac{1}{4}$	4.15	4.65	6.00	7.50	9.00	10.50
	$2\frac{1}{2}$	4.35	4.95	6.40	8.05	9.75	11.50
	$2\frac{3}{4}$	4.55	5.25	6.80	8.60	10.50	12.40
	3	4.75	5.55	7.20	9.15	11.20	13.30

FILLISTER HEAD



Coarse U.S.S. Thread—List Adopted February 1, 1924

Price per 100

Dia. of Head, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{1}{4}$
Ht. of Head, in.	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
Threads to inch	20	18	16	14	13
Dia. of Screw, in.	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Length under head to extreme points, inches.	$\frac{1}{4}$	\$2.70	3.00	3.75	4.90
	1	3.05	3.35	4.15	5.30
	$1\frac{1}{4}$	3.35	3.65	4.45	5.65
	$1\frac{1}{2}$	3.65	3.90	4.80	6.05
	$1\frac{3}{4}$	3.80	4.10	5.20	6.50
	2	4.00	4.35	5.60	6.90
	$2\frac{1}{4}$	4.15	4.65	6.00	7.50
	$2\frac{1}{2}$	4.35	4.95	6.40	8.05
	$2\frac{3}{4}$	4.55	5.25	6.80	8.60
	3	4.75	5.55	7.20	9.15
	$3\frac{1}{4}$	4.95	5.75	7.60	9.40
	4	5.15	6.00	8.00	9.80

BRASS CAP SCREWS



Hexagon Head, National Coarse Thread

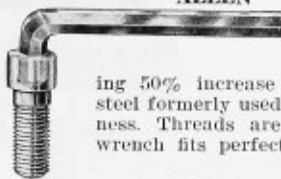
Price per 100

Length, inches	Diameter, inches				
	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
$\frac{1}{4}$	\$5.10	\$7.10	\$9.10	\$12.10	\$17.90
1	5.50	7.60	9.80	13.10	19.00
$1\frac{1}{4}$	6.00	8.20	10.60	14.20	20.20
$1\frac{1}{2}$	6.50	8.90	11.50	15.40	21.50
2	7.80	10.80	13.60	18.10	24.40
$2\frac{1}{2}$	9.80	12.90	16.10	21.20	27.70

 $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{8}$ up to 2 in., 100 in a box; balance 50 in a box.

SOCKET HEAD CAP SCREWS

ALLEN



Made of chrome molybdenum steel, cold drawn and heat treated; showing 50% increase in tensile strength over steel formerly used with a 25% gain in hardness. Threads are accurately cut and the wrench fits perfect for solid leverage.

U. S. S. Threads
Per Hundred, Including Four Wrenches

	Diameter of Screws									
	No. 10	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2
1/8	\$4.90	5.25	6.25	7.40	8.90	10.20	11.75	13.50	15.50	17.75
1/4	5.10	5.50	6.50	7.70	9.20	10.60	12.25	14.00	16.00	18.25
3/8	5.30	5.75	6.75	7.90	9.40	10.80	12.50	14.25	16.25	18.50
1/2	5.50	6.00	7.00	8.20	9.60	11.00	12.75	14.50	16.50	18.75
5/8	6.00	6.50	7.50	8.70	10.10	11.50	13.25	15.00	17.00	19.25
3/4	6.25	6.75	7.75	8.90	10.30	11.75	13.50	15.25	17.25	19.50
7/8	7.00	7.50	8.50	9.70	11.10	12.50	14.25	16.00	18.00	20.25
1	7.75	8.25	9.25	10.40	11.80	13.25	15.00	16.75	18.75	21.00
1 1/4	8.50	9.00	10.00	11.20	12.60	14.00	15.75	17.50	19.50	21.75
1 1/2	9.25	9.75	10.75	11.90	13.30	14.75	16.50	18.25	20.25	22.50
2	10.50	11.00	12.00	13.20	14.60	16.00	17.75	19.50	21.50	23.75
2 1/4	11.25	11.75	12.75	13.90	15.30	16.75	18.50	20.25	22.25	24.50
2 1/2	12.00	12.50	13.50	14.70	16.10	17.50	19.25	21.00	23.00	25.25
3	12.75	13.25	14.25	15.40	16.80	18.25	20.00	21.75	23.75	26.00
3 1/4	13.50	14.00	15.00	16.20	17.60	19.00	20.75	22.50	24.50	26.75
3 1/2	14.25	14.75	15.75	16.90	18.30	19.75	21.50	23.25	25.25	27.50
4	15.00	15.50	16.50	17.70	19.10	20.50	22.25	24.00	26.00	28.25
4 1/4	15.75	16.25	17.25	18.40	19.80	21.25	23.00	24.75	26.75	29.00
4 1/2	16.50	17.00	18.00	19.20	20.60	22.00	23.75	25.50	27.50	29.75
5	17.25	17.75	18.75	19.90	21.30	22.75	24.50	26.25	28.25	30.50
5 1/4	18.00	18.50	19.50	20.70	22.10	23.50	25.25	27.00	29.00	31.25
5 1/2	18.75	19.25	20.25	21.40	22.80	24.25	26.00	27.75	29.75	32.00
6	19.50	20.00	21.00	22.20	23.60	25.00	26.75	28.50	30.50	32.75

Extra Wrenches

Short, Ea.	.04	.05	.06	.10	.10	.15	.25	.35	.35	.45
Long, Ea.	.05	.06	.07	.12	.12	.20	.35	.50	.50	.65

STEEL SET SCREWS

SQUARE HEAD OR HEADLESS



Cup Point
Case Hardened



Square Head, Cup Point Headless, Slotted Cup Point
Coarse U. S. S. Threads—List Adopted February 1, 1924

Price per 100

	Diameter of Screws									
	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	2
1/8	\$2.80	3.15	3.65	4.20	4.80	5.40	6.00	6.60	7.20	7.80
1/4	2.85	3.20	3.70	4.25	4.85	5.45	6.05	6.65	7.25	7.85
3/8	2.90	3.25	3.75	4.30	4.90	5.50	6.10	6.70	7.30	7.90
1/2	3.10	3.40	3.90	4.40	5.00	5.60	6.20	6.80	7.40	8.00
5/8	3.25	3.55	4.05	4.55	5.15	5.75	6.35	6.95	7.55	8.15
3/4	3.60	3.90	4.40	4.90	5.50	6.10	6.70	7.30	7.90	8.50
7/8	3.95	4.20	4.70	5.20	5.80	6.40	7.00	7.60	8.20	8.80
1	4.25	4.50	5.00	5.50	6.10	6.70	7.30	7.90	8.50	9.10
1 1/4	4.55	4.80	5.30	5.80	6.40	7.00	7.60	8.20	8.80	9.40
1 1/2	4.80	5.05	5.55	6.05	6.65	7.25	7.85	8.45	9.05	9.65
2	5.10	5.35	5.85	6.35	6.95	7.55	8.15	8.75	9.35	9.95
2 1/4	5.35	5.60	6.10	6.60	7.20	7.80	8.40	9.00	9.60	10.20
2 1/2	5.65	5.90	6.40	6.90	7.50	8.10	8.70	9.30	9.90	10.50
3	5.90	6.15	6.65	7.15	7.75	8.35	8.95	9.55	10.15	10.75
3 1/4	6.15	6.40	6.90	7.40	8.00	8.60	9.20	9.80	10.40	11.00
3 1/2	6.40	6.65	7.15	7.65	8.25	8.85	9.45	10.05	10.65	11.25
4	6.65	6.90	7.40	7.90	8.50	9.10	9.70	10.30	10.90	11.50
4 1/4	6.90	7.15	7.65	8.15	8.75	9.35	9.95	10.55	11.15	11.75
4 1/2	7.15	7.40	7.90	8.40	9.00	9.60	10.20	10.80	11.40	12.00
5	7.40	7.65	8.15	8.65	9.25	9.85	10.45	11.05	11.65	12.25

STOP PUNCHES

PARKER-KALON

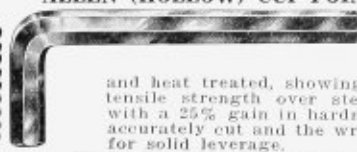


Designed especially for use where a pierced hole is practicable. The "stop" or shoulder prevents the punch from being driven too far, assuring holes of exactly the right size. For use with corresponding Parker-Kalon sheet metal screw sizes.

Nos.	6SP	7SP	8SP	10SP	12SP	14SP
Each	\$0.30	.30	.30	.30	.30	.30

SAFETY SET SCREWS

ALLEN (HOLLOW) CUP POINT



Made of chrome molybdenum steel, cold drawn and heat treated, showing 50% increase in tensile strength over steel formerly used with a 25% gain in hardness. Threads are accurately cut and the wrench fits perfectly for solid leverage.

U. S. S. Threads Cup Point
Per Hundred, Including Four Wrenches

	Diameter of Screw									
	No. 10	1/4	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2
1/8	\$4.70	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75
1/4	4.75	4.80	4.85	4.90	4.95	5.00	5.05	5.10	5.15	5.20
3/8	4.80	4.85	4.90	4.95	5.00	5.05	5.10	5.15	5.20	5.25
1/2	4.85	4.90	4.95	5.00	5.05	5.10	5.15	5.20	5.25	5.30
5/8	4.90	4.95	5.00	5.05	5.10	5.15	5.20	5.25	5.30	5.35
3/4	4.95	5.00	5.05	5.10	5.15	5.20	5.25	5.30	5.35	5.40
7/8	5.00	5.18	5.40	5.68	6.50	7.20	7.90	8.60	9.30	10.00
1	5.15	5.35	5.60	5.90	6.75	7.60	8.30	9.00	9.70	10.40
1 1/4	5.45	5.70	6.00	6.35	7.25	8.20	9.10	10.00	10.90	11.80
1 1/2	5.75	6.05	6.40	6.80	7.75	8.80	9.70	10.60	11.50	12.40
2	6.05	6.40	6.80	7.25	8.25	9.40	10.60	11.80	13.00	14.20
2 1/4	6.65	7.10	7.60	8.15	9.25	10.60	12.00	13.40	14.80	16.20
2 1/2	7.80	8.40	9.05	10.25	11.80	13.40	15.00	16.60	18.20	19.80
3	8.50	9.20	9.95	11.25	13.00	14.80	16.60	18.40	20.20	22.00
3 1/4	9.20	10.00	10.85	12.25	14.20	16.20	18.20	20.20	22.20	24.20
3 1/2	10.00	10.85	11.80	13.25	15.40	17.60	19.80	22.00	24.20	26.40
4	11.00	12.00	13.00	14.50	16.60	18.80	21.00	23.20	25.40	27.60

Extra Wrenches

Short, Ea.	.03	.03	.04	.05	.06	.07	.10	.15	.25	.35
Long, Ea.	.04	.04	.05	.06	.07	.08	.12	.20	.35	.50

SHEET METAL SCREWS

PARKER-KALON TYPE "A"



Round Head

Binding Head

Stove Head

Countersunk Flat Head

Countersunk Oval Head

Hardened, Self-Tapping, Plain Steel Finish

For joining light gauges of sheet metal and making fastenings to sheet metal up to 18 gauge (.050 in.)

Nos.	Screw diam. dec. equiv., in.	Screw lgth., in.	Heads avail-able	Per gross	Nos.	Screw diam. dec. equiv., in.	Screw lgth., in.	Heads avail-able	Per gross
4	(.112)	1/4	RBFO	\$0.24	10	(.191)	1 1/2	RBFO	\$0.34
4	(.112)	3/8	RBFO	.25	10	(.191)	3/4	RBFO	.36
4	(.112)	1/2	RBFO	.26	10	(.191)	1	RBFO	.38
4	(.112)	5/8	RBFO	.27	10	(.191)	3/8	RBFO	.40
4	(.112)	3/4	RBFO	.28	10	(.191)	1 1/4	RBFO	.42
6	(.138)	1/4	RBFO	.25	10	(.191)	1	RBFO	.44
6	(.138)	3/8	RBFO	.26	10	(.191)	1 1/4	RFO	.48
6	(.138)	1/2	RBFO	.27	10	(.191)	1 1/2	RFO	.52
6	(.138)	5/8	RBFO	.28	10	(.191)	1 3/4	RFO	.56
6	(.138)	3/4	RBFO	.29	10	(.191)	2	RFO	.60
6	(.138)	1	RBFO	.30	12	(.218)	1 1/2	RBFO	.38
6	(.138)	1 1/4	RBFO	.31	12	(.218)	3/4	RBFO	.41
7	(.155)	1/4	RBFO	.27	12	(.218)	1	RBFO	.44
7	(.155)	3/8	RBFO	.28	12	(.218)	3/8	RBFO	.47
7	(.155)	1/2	RBFO	.29	12	(.218)	1	RBFO	.50
7	(.155)	5/8	RBFO	.30	12	(.218)	1 1/4	RFO	.56
7	(.155)	3/4	RBFO	.31	12	(.218)	1 1/2	RFO	.62
7	(.155)	1	RBFO	.32	14	(.251)	1 1/2	RFO	.42
8	(.165)	1/4	RBFO	.29	14	(.251)	3/8	RBFO	.46
8	(.165)	3/8	RBFO	.31	14	(.251)	1	RBFO	.50
8	(.165)	1/2	RBFO	.33	14	(.251)	1 1/4	RFO	.54
8	(.165)	5/8	RBFO	.35	14	(.251)	1 1/2	RFO	.58
8	(.165)	3/4	RBFO	.37	14	(.251)	1 3/4	RFO	.66
8	(.165)	1	RBFO	.39	14	(.251)	2	RFO	.74
8	(.165)	1 1/4	RBFO	.43	14	(.251)	1 3/4	RFO	.82
8	(.165)	1 1/2	RBFO	.47	14	(.251)	2	RFO	.90

1 gross in a box.

† R denotes Round Head † F denotes Countersunk Flat Head
† B denotes

IRON AND BRASS WOOD SCREWS

FLAT OR ROUND HEAD

List of November 20, 1935

Prices Per Gross



Flat Head



Round Head

1/4 Inch		5/8 Inch (Cont'd)		1 Inch		1 1/2 Inch (Cont'd)		2 Inch (Cont'd)		2 1/2 Inch		3 1/2 Inch	
Nos.	Iron Brass	Nos.	Iron Brass	Nos.	Iron Brass	Nos.	Iron Brass	Nos.	Iron Brass	Nos.	Iron Brass	Nos.	Iron Brass
0	\$.30 \$0.64	6	\$.44 \$1.40	3	\$.46	7	\$.70 \$2.80	18	\$.24 \$12.45	8	\$.10	11	\$.10
1	.30 .66	7	.48 1.60	4	.48 \$1.50	8	.75 3.20	20	.28	9	.12	12	.20
2	.30 .70	8	.52 1.80	5	.50 1.65	9	.80 3.60	Nos. 6 to 16, 5 gross; Nos. 18 to 20, 1 gross in carton.		10	.132	14	.280 13.25
3	.32 .76	9	.56 2.05	6	.54 1.85	10	.86 4.00	2 1/2 Inch		11	.145	16	.335 16.65
4	.32 .86	10	.60 2.30	7	.58 2.15	11	.95 4.55	Nos. 8 to 14, 5 gross; Nos. 16 to 20, 1 gross in carton.		12	.165	18	.395 20.20
10 gro. in carton.		11	.64	8	.62 2.40	12	1.05 5.10	3 Inch		14	2.05	20	4.55
		12	.68	9	.66 2.70	14	1.35 6.50	Nos. 8 to 14, 5 gross; Nos. 16 to 20, 1 gross in carton.		16	2.60	24	5.70
				10	.70 3.00	16	1.75 7.75	4 Inch		18	3.20	Nos. 10 to 20, 2 1/2 gross; No. 24, 1/2 gross in carton.	
				11	.75 3.35	18	2.05	Nos. 6 to 14, 5 gross; Nos. 16 to 20, 1 gross in carton.		20	3.80	5 Inch	
				12	.80 3.80	20	2.40	Nos. 8 to 14, 5 gross; Nos. 16 to 20, 1 gross in carton.				Nos. 12 and 14, 2 1/2 gross; Nos. 16 to 24, 1/2 gross in carton.	
				14	1.10 4.90	1 1/2 Inch		2 1/2 Inch		3 1/2 Inch		4 1/2 Inch	
				16	1.40	Nos. 6 to 10, 10 gross; Nos. 11 to 20, 5 gross in carton.		Nos. 6 to 14, 5 gross; Nos. 16 to 20, 1 gross in carton.		Nos. 8 to 12, 5 gross; Nos. 14 and 16, 1 gross; Nos. 18 and 20, 2 1/2 gross; No. 24 1/2 gross in carton.		Nos. 14 to 20, 1/2 gross in carton.	
				10 gro. in carton.		2 Inch		Nos. 6 to 12, 5 gross; Nos. 14 to 20, 1 gross in carton.		Nos. 8 to 12, 5 gross; Nos. 14 and 16, 1 gross; Nos. 18 and 20, 2 1/2 gross; No. 24 1/2 gross in carton.		Nos. 14 to 20, 1/2 gross in carton.	
						Nos. 6 to 10, 10 gross; Nos. 11 to 20, 5 gross in carton.		Nos. 6 to 12, 5 gross; Nos. 14 to 20, 1 gross in carton.		Nos. 8 to 12, 5 gross; Nos. 14 and 16, 1 gross; Nos. 18 and 20, 2 1/2 gross; No. 24 1/2 gross in carton.		Nos. 14 to 20, 1/2 gross in carton.	
						Nos. 6 to 10, 10 gross; Nos. 11 to 20, 5 gross in carton.		Nos. 6 to 12, 5 gross; Nos. 14 to 20, 1 gross in carton.		Nos. 8 to 12, 5 gross; Nos. 14 and 16, 1 gross; Nos. 18 and 20, 2 1/2 gross; No. 24 1/2 gross in carton.		Nos. 14 to 20, 1/2 gross in carton.	

Iron Screws; Carried in stock in Flat Head Bright, Round Head Blued and Round Head Nickel Plated.

The following varieties of Iron Screws are invoiced from this list at varying discounts; Flat, Round, Fillister, Piano and Oval Head Screws, Bright, Blued, Nickel Plated, Silver Plated, Brased, Bronzed, Coppered, Japanned, Lacquered, Tinned, Galvanized and Sherardized.

Brass Screws; Carried in stock in Flat, Round and Oval Head Brass, and Flat, Round and Oval Head Brass Nickel Plated.

The following varieties of Screws are invoiced from this list at varying discounts: Flat, Round and Oval Head Screws, of Brass, Bronze Metal, Nickel and Silver Plated on Brass.

Lengths and diameters not listed are specials, but are furnished to the extent they may be in stock, or when required in sufficient quantities of a size to warrant being made to order. Such non-listed lengths and diameters take the list prices of the next longer or larger listed sizes.



DRIVE SCREWS

PARKER-KALON TYPE "U"

Round Head, Hardened, Metallic

For making permanent fastening to iron, brass and aluminum casting, steel, bakelite, etc.

Nos.	Dia. Decimal Equiv., in.	Screw length, in.	Stock Finish	Per 1000	Nos.	Dia. Decimal Equiv., in.	Screw length, in.	Stock Finish	Per 1000
00	.058	1/8	Brass Plated	\$1.20	7	.152	1 1/8	Plain Steel	\$1.93
00	.058	3/8	Brass Plated	1.20	7	.152	3/8	Plain Steel	2.00
00	.058	1/2	Brass Plated	1.20	7	.152	1/2	Plain Steel	2.07
0	.073	1/8	Brass Plated	1.20	8	.164	3/8	Plain Steel	2.50
0	.073	3/8	Brass Plated	1.20	8	.164	1/2	Plain Steel	2.60
0	.073	1/2	Brass Plated	1.20	8	.164	5/8	Plain Steel	2.70
2	.098	1/8	Brass Plated	1.20	10	.179	3/8	Plain Steel	2.85
2	.098	3/8	Brass Plated	1.20	10	.179	1/2	Plain Steel	2.98
2	.098	1/2	Brass Plated	1.20	10	.179	5/8	Plain Steel	3.11
4	.114	1/8	Brass Plated	1.39	12	.209	1/2	Plain Steel	3.16
4	.114	3/8	Brass Plated	1.45	12	.209	5/8	Plain Steel	3.29
4	.114	1/2	Brass Plated	1.51	12	.209	3/4	Plain Steel	3.42
6	.138	1/8	Brass Plated	1.64	14	.239	1/2	Plain Steel	3.86
6	.138	3/8	Brass Plated	1.71	14	.239	5/8	Plain Steel	4.04
6	.138	1/2	Brass Plated	1.78	14	.239	3/4	Plain Steel	4.22

1000 in a box.

MACHINE SCREWS
STEEL

Flat Head



Round Head



Oval Head



Fillister Head

Flat, Round, Oval or Fillister Head

List of April 2, 1928

Thrs per in.	56	48	40	32	32	24	24	20	18	Price Per Gross	
	64	56	48	40	36	32	28	28	24	16	13
Diameter	2	3	4	6	8	10	12	1/4	5/8	3/8	1/2
Diam., Decim.											
Equiv., in.	.086	.099	.112	.138	.164	.190	.216	.250	.3125	.375	.500
1/8	\$0.24	\$0.25	\$0.26	\$0.28	.....	.....	.....	.....	.....	.....	.....
1/8	.25	.26	.27	.29	\$0.35	\$0.45	.....	.....	.....	.....	.....
1/8	.26	.27	.28	.30	.36	.46	\$0.64	.....	.....	.....	.....
1/8	.27	.28	.29	.31	.37	.48	.66	\$0.80	.....	.....	.....
3/8	.28	.29	.30	.32	.39	.50	.68	.84	\$1.55	.....	.....
1/2	.29	.30	.31	.34	.41	.52	.70	.88	1.60	.....	.....
1/2	.30	.31	.32	.36	.43	.54	.74	.92	1.65	\$2.20	.....
5/8	.32	.33	.34	.40	.47	.58	.82	1.00	1.75	2.40	.....
3/4	.33	.34	.36	.43	.49	.62	.86	1.05	1.80	2.50	\$5.10
7/8	.34	.36	.38	.46	.53	.66	.92	1.10	1.90	2.65	5.85
1	.....	.....	.42	.50	.57	.70	.98	1.20	2.00	2.85	6.60
1 1/8	.....	.....	.46	.54	.63	.76	1.04	1.30	2.10	3.05	7.00
1 1/4	.....	.....	.52	.58	.69	.82	1.10	1.40	2.25	3.25	7.35
1 1/2	.....	.....	.60	.68	.82	.95	1.24	1.60	2.45	3.55	8.00
1 3/4	.....	.....	.....	.82	.95	1.12	1.40	1.80	2.75	3.95	8.60
2	.....	.....	.....	.96	1.08	1.30	1.60	2.00	3.05	4.40	9.40
2 1/4	.....	.....	.....	.....	1.25	1.50	1.80	2.25	3.35	4.85	10.30
2 1/2	.....	.....	.....	.....	1.45	1.70	2.05	2.50	3.65	5.40	11.50
2 3/4	.....	.....	.....	.....	1.65	1.95	2.30	2.75	4.00	6.00	12.40
3	.....	.....	.....	.....	1.85	2.15	2.60	3.10	4.40	6.60	13.60

BRASS



Flat Head



Round Head



Oval Head



Fillister Head

Flat, Round, Oval or Fillister Head

Thrs per in.	56	48	40	32	32	24	24	20	18	Price Per Gross	
	64	56	48	40	36	32	28	28	24	16	13
Diameter	2	3	4	6	8	10	12	1/4	5/8	3/8	1/2
Diam., Decim.											
Equiv., in.	.086	.099	.112	.138	.164	.190	.216	.250	.3125	.375	.500
1/8	\$0.28	\$0.34	\$0.40	\$0.52	.....	.....	.....	.....	.....	.....	.....
1/8	.30	.36	.42	.54	\$0.70	\$0.95	.....	.....	.....	.....	.....
1/8	.32	.38	.44	.58	.76	1.05	\$1.60	.....	.....	.....	.....
1/8	.34	.40	.46	.62	.82	1.15	1.70	\$2.30	.....	.....	.....
3/8	.36	.42	.48	.66	.88	1.25	1.80	2.40	\$4.60	.....	.....
1/2	.38	.44	.50	.70	.94	1.35	1.90	2.50	4.80	.....	.....
1/2	.40	.46	.54	.76	1.02	1.45	2.00	2.65	5.00	\$7.10	.....
5/8	.44	.52	.62	.92	1.20	1.75	2.20	2.95	5.40	7.70	.....
3/4	.50	.58	.68	1.00	1.30	1.90	2.40	3.15	5.80	8.20	\$15.75
7/8	.56	.66	.74	1.10	1.45	2.05	2.60	3.45	6.30	8.90	17.10
1	.....	.....	.82	1.20	1.60	2.20	2.80	3.75	6.80	9.60	18.50
1 1/8	.....	.....	.90	1.30	1.75	2.35	3.00	4.05	7.30	10.30	22.10
1 1/4	.....	.....	1.00	1.45	1.90	2.55	3.25	4.35	7.80	11.00	22.10
1 1/2	.....	.....	1.25	1.65	2.15	2.90	3.75	4.95	8.50	12.10	26.65
1 3/4	.....	.....	.....	1.95	2.45	3.35	4.25	5.55	9.30	13.40	28.10
2	.....	.....	.....	2.25	2.75	3.80	4.75	6.15	10.40	14.70	30.20
2 1/4	.....	.....	.....	.....	3.10	4.25	5.25	6.75	11.50	16.20	32.95
2 1/2	.....	.....	.....	.....	3.45	4.75	5.75	7.35	12.60	17.80	35.65
2 3/4	.....	.....	.....	.....	3.80	5.25	6.25	8.00	13.70	19.50	38.15
3	.....	.....	.....	.....	4.15	5.75	6.75	8.65	14.90	21.60	40.65

Machine Screws: Carried in stock in flat head, round head, oval head and fillister head.

Nickel plated, brass machine screws, all kinds and sizes; bronze and special finishes can be furnished to order.

Lengths, diameters and threads per inch not listed are special; but are furnished to the extent that they may be in stock, or when required in sufficient quantities of a size to warrant being made to order. Such non-listed lengths and diameters priced depending upon quantity.

Coarse thread pitches shown in heavy face type are furnished regularly. Their use is recommended. Fine thread pitches shown in light face type can be furnished. Round and fillister head screws are measured from under head, flat head are measured over all.

All above, one gross in a box.

MACHINE SCREW NUTS

HEXAGON

Cold Pressed and Tapped, American Standard
Thread
Steel or Brass
List of November 1, 1934



Nos.	Threads per inch		Width, in.	Thick-ness, in.	Steel		Brass	
	Coarse	Fine			Wt. gr., lbs.	Per gross	Wt. gr., lbs.	Per gross
2	56	64	$\frac{3}{16}$	$\frac{1}{16}$	.06	\$0.45	.07	\$0.95
3	48	56	$\frac{7}{16}$	$\frac{1}{16}$	.06	.45	.07	.95
4	40	48	$\frac{1}{4}$	$\frac{3}{16}$	.17	.34	.18	.80
6	32	40	$\frac{5}{16}$	$\frac{1}{8}$	.31	.36	.34	1.00
8	32	36	$\frac{11}{16}$	$\frac{1}{8}$	.41	.40	.44	1.25
10	24	32	$\frac{3}{8}$	$\frac{1}{8}$	.48	.43	.52	1.40
12	24	28	$\frac{7}{8}$	$\frac{3}{16}$	.81	.63	.87	2.40
$\frac{1}{4}$	20	28	$\frac{7}{8}$	$\frac{1}{2}$	.90	.72	.97	2.80
$\frac{3}{8}$	18	24	$\frac{7}{8}$	$\frac{3}{4}$	1.75	1.35	1.89	5.70
$\frac{1}{2}$	16	24	$\frac{3}{4}$	$\frac{1}{4}$	2.35	1.70	2.53	7.80

SQUARE

Cold Pressed and Tapped, American Standard
Thread
Steel or Brass
List of November 1, 1934



Nos.	Threads per inch		Width, in.	Thick-ness, in.	Steel		Brass	
	Coarse	Fine			Wt. gr., lbs.	Per gross	Wt. gr., lbs.	Per gross
2	56	64	$\frac{3}{16}$	$\frac{1}{16}$	.07	\$0.40	.08	\$0.95
3	48	56	$\frac{7}{16}$	$\frac{1}{16}$	.07	.40	.08	.95
4	40	48	$\frac{1}{4}$	$\frac{3}{16}$	.20	.31	.21	.80
6	32	40	$\frac{5}{16}$	$\frac{1}{8}$	.37	.33	.40	1.00
8	32	36	$\frac{11}{16}$	$\frac{1}{8}$	.48	.35	.52	1.25
10	24	32	$\frac{3}{8}$	$\frac{1}{8}$	.57	.37	.61	1.40
12	24	28	$\frac{7}{8}$	$\frac{3}{16}$	.96	.56	1.03	2.40
$\frac{1}{4}$	20	28	$\frac{7}{8}$	$\frac{1}{2}$	1.08	.63	1.17	2.80
$\frac{3}{8}$	18	24	$\frac{7}{8}$	$\frac{3}{4}$	2.10	1.10	2.27	5.70
$\frac{1}{2}$	16	24	$\frac{3}{4}$	$\frac{1}{4}$	2.84	1.50	3.06	7.80

All above, one gross in a box.

STOVE BOLT NUTS

SQUARE



Cold Pressed and Tapped

Size, in.	Threads per in.	Width, in.	Thickness, in.	Wt. per 100, lbs.	Per 100
$\frac{1}{8}$	40	$\frac{3}{16}$	$\frac{1}{16}$	.24	\$0.23
$\frac{3}{16}$	32	$\frac{1}{4}$	$\frac{1}{16}$	.32	.24
$\frac{1}{4}$	24	$\frac{5}{16}$	$\frac{1}{8}$	.40	.26
$\frac{3}{8}$	20	$\frac{3}{8}$	$\frac{1}{8}$	.73	.44
$\frac{1}{2}$	18	$\frac{7}{8}$	$\frac{1}{8}$	1.42	.76
$\frac{3}{4}$	16	$\frac{1}{4}$	$\frac{1}{8}$	1.90	1.04
$\frac{1}{2}$	13	$\frac{1}{2}$	$\frac{1}{8}$	5.04	1.67

100 in a box.

BRASS NUTS

SEMI-FINISHED, HEXAGON

American Standard Heavy, Full or Jam



Size, in.	Threads per in.	Width, in.	Thickness, in.	No. in. box	Per 100
$\frac{1}{4}$	20	$\frac{1}{2}$	$\frac{1}{4}$	100	\$2.40
$\frac{3}{8}$	18	$\frac{3}{4}$	$\frac{1}{4}$	100	3.20
$\frac{1}{2}$	16	$\frac{1}{2}$	$\frac{3}{8}$	100	5.20
$\frac{3}{4}$	14	$\frac{3}{4}$	$\frac{1}{2}$	100	7.20
$\frac{1}{2}$	13	$\frac{3}{4}$	$\frac{1}{2}$	100	9.60
$\frac{3}{4}$	12	$\frac{1}{2}$	$\frac{3}{4}$	50	15.00
$\frac{1}{2}$	11	$\frac{1}{2}$	$\frac{3}{4}$	50	17.00
$\frac{3}{4}$	10	$\frac{1}{2}$	$\frac{3}{4}$	50	27.00
$\frac{1}{2}$	9	$\frac{1}{2}$	$\frac{3}{4}$	25	45.00
$\frac{1}{2}$	8	$\frac{1}{2}$	$\frac{1}{2}$	25	68.00

BRASS CAP NUTS

HEXAGON

Natural Brass or Nickel Plated Finish

Cold forged, machine screw thread sizes, American National Standard.



Size	Threads per in.	Width across flats, in.	No. in a box	Wt. per 100, lbs.	Brass Per 100	N. P. Per 100
6	32	$\frac{1}{16}$	100	$\frac{1}{2}$	\$0.55	\$0.65
8	32	$\frac{1}{16}$	100	$\frac{1}{2}$	.55	.65
10	24	$\frac{3}{16}$	100	$\frac{3}{4}$	.65	.80
10	32	$\frac{3}{16}$	100	$\frac{5}{8}$	.65	.80
12	24	$\frac{3}{16}$	100	$\frac{5}{8}$	.65	.80
$\frac{1}{4}$	20	$\frac{7}{16}$	100	1	.80	.95
$\frac{1}{8}$	18	$\frac{7}{16}$	100	$2\frac{1}{4}$	1.35	1.60
$\frac{3}{8}$	16	$\frac{5}{8}$	100	$2\frac{3}{4}$	1.80	2.15
$\frac{1}{2}$	14	$\frac{3}{4}$	50	$4\frac{3}{4}$	2.85	3.40
$\frac{3}{4}$	13	$\frac{3}{4}$	50	4	2.85	3.40
$\frac{1}{2}$	11	$\frac{1}{2}$	25	$9\frac{1}{2}$	5.50	6.60

BRASS WING NUTS



Cold Forged, Machine Screw Thread Sizes

For screw size	Threads per inch	Wing spread, inch	No. in a box	Wt. per 100, lbs.	Per 100
6	32	$\frac{1}{16}$	100	$\frac{7}{8}$	\$0.95
8	32	$\frac{1}{16}$	100	$\frac{7}{8}$	.95
10	24	$\frac{1}{16}$	100	$\frac{7}{8}$	.95
10	32	$\frac{1}{16}$	100	$\frac{7}{8}$	.95
12	24	$1\frac{1}{16}$	100	$1\frac{1}{2}$	1.40
$\frac{1}{4}$	20	$1\frac{1}{16}$	100	$1\frac{1}{2}$	1.40
$\frac{3}{8}$	18	$1\frac{1}{16}$	100	$2\frac{3}{8}$	1.90
$\frac{1}{2}$	16	$1\frac{1}{8}$	100	4	3.10
$\frac{3}{4}$	14	$1\frac{1}{8}$	50	$10\frac{1}{2}$	7.25
$\frac{1}{2}$	13	$1\frac{1}{8}$	50	$9\frac{3}{4}$	7.25

STEEL WING NUTS



PARKER-KALON

Cold Forged

For screw size	Threads per inch	Thread	Wing spread, inch	No. in box	Wt. per 100, lbs.	Per 100
6	32	A.N.S.	$\frac{1}{16}$	100	$\frac{3}{4}$	\$0.50
8	32	A.N.S.	$\frac{1}{16}$	100	$\frac{3}{4}$	.50
10	24	A.N.S.	$\frac{1}{16}$	100	$\frac{3}{4}$	.50
10	32	A.N.S.	$\frac{1}{16}$	100	$\frac{3}{4}$	.50
12	24	A.N.S.	$1\frac{1}{16}$	100	$1\frac{1}{2}$	.55
$\frac{1}{4}$	20	A.N.S.	$1\frac{1}{16}$	100	$1\frac{1}{2}$	.55
$\frac{3}{8}$	18	S.A.E.	$1\frac{1}{16}$	100	$1\frac{1}{2}$	.55
$\frac{1}{2}$	18	A.N.S.	$1\frac{1}{16}$	100	$2\frac{1}{4}$	.65
$\frac{3}{8}$	24	S.A.E.	$1\frac{1}{16}$	100	$2\frac{1}{4}$	.65
$\frac{1}{2}$	16	A.N.S.	$1\frac{1}{8}$	100	$3\frac{3}{8}$	1.10
$\frac{3}{4}$	24	S.A.E.	$1\frac{1}{8}$	100	$3\frac{3}{8}$	1.10
$\frac{1}{2}$	14	A.N.S.	$1\frac{1}{8}$	50	9	2.50
$\frac{3}{4}$	13	A.N.S.	$1\frac{1}{8}$	50	$8\frac{3}{4}$	2.50
$\frac{1}{2}$	11	A.N.S.	$2\frac{3}{8}$	25	$23\frac{1}{2}$	10.50
$\frac{3}{4}$	10	A.N.S.	$2\frac{3}{8}$	25	$21\frac{1}{2}$	10.50

KNURLED BRASS NUTS



Size, Thrd	Diam. in.	Hgt. in.	Per 100	Size, Thrd	Diam. in.	Hgt. in.	Per 100
4-36	$\frac{3}{16}$	$\frac{3}{16}$	\$1.20	10-32	$\frac{1}{2}$	$\frac{1}{2}$	\$1.50
6-32	$\frac{1}{8}$	$\frac{3}{16}$	1.20	12-34	$\frac{3}{8}$	$\frac{1}{2}$	1.70
8-32	$\frac{1}{8}$	$\frac{1}{2}$	1.30	14-20	$\frac{5}{8}$	$\frac{3}{4}$	2.00
10-24	$\frac{1}{2}$	$\frac{1}{2}$	1.50	$\frac{1}{2}$ -18	$\frac{1}{2}$	$\frac{1}{2}$	3.00

100 in a box.

SEMI-FINISHED NUTS

HEXAGON, TAPPED

Single Chamfer; Single Countersink
American Standard Heavy
(U. S. S.) Thread
List Adopted April 1, 1927
Packed in Cartons



Screw diam., in.	Threads per inch	Width across flat, in.	Thickness, in.	Quantity in std. pkge.	Wt. per 1000, lbs.	Per 100
1/8	24	3/8	1/8	100	12.0	\$0.65
1/4	20	1/2	1/4	100	12.0	.75
3/8	18	5/8	3/8	100	20.2	1.00
1/2	16	3/4	1/2	100	32.0	1.35
5/8	14	7/8	5/8	100	47.0	1.90
3/4	13	1 1/8	3/4	100	67.0	2.40
7/8	12	1 1/4	7/8	50	98.0	3.30
1	11	1 3/8	1	50	119.0	4.00
1 1/8	10	1 1/2	1 1/8	50	192.0	5.70
1 1/4	9	1 5/8	1 1/4	25	292.0	8.75
1 1/2	8	1 3/4	1 1/2	25	423.0	12.00
1 3/4	7	1 7/8	1 3/4	15	585.0	16.70
2	7	2	2	15	812.0	22.70

Single Chamfer; Single Countersink
American Standard Light
(S. A. E.) Thread
List Adopted April 1, 1927
Packed in Cartons



For bolt, in.	Threads to inch	Width, in.	Thickness, in.	No. in a carton	Wt. per 1000, lbs.	Per 100
1/8	32	3/8	.165	100	4.9	\$0.60
1/4	28	1/2	1/8	100	7.2	.65
3/8	24	5/8	3/16	100	10.6	.75
1/2	20	3/4	1/4	100	15.3	.95
5/8	18	7/8	3/8	50	21.0	1.30
3/4	16	1 1/8	1/2	50	36.0	1.65
7/8	14	1 1/4	5/8	50	56.2	2.50
1	12	1 1/2	3/4	50	69.2	3.20
1 1/8	11	1 3/4	7/8	50	99.0	5.00
1 1/4	10	1 7/8	1	25	162.0	8.00
1 1/2	9	2	1 1/8	25	245.0	11.60

Single Chamfer; Single Countersink
Jam, U. S. S. Threads
List Adopted April 1, 1927
Packed in Cartons



For bolt, in.	Threads to inch	Width, in.	Thickness, in.	No. in a carton	Wt. per 1000, lbs.	Per 100
1/8	20	1/2	1/8	100	9.2	\$0.75
1/4	18	5/8	3/16	100	14.3	1.00
3/8	16	3/4	1/4	100	21.5	1.35
1/2	14	7/8	3/8	100	30.7	1.90
5/8	13	1	1/2	100	42.8	2.40
3/4	12	1 1/8	5/8	50	55.6	3.30
7/8	11	1 1/4	3/4	50	73.3	4.00
1	10	1 1/2	7/8	50	114.0	5.70
1 1/8	9	1 3/4	1	50	171.0	8.75
1 1/4	8	1 7/8	1 1/8	50	242.0	12.00
1 1/2	7	2	1 1/4	25	346.0	16.70
1 3/4	7	2 1/8	1 3/8	25	473.0	22.70

KNURLED BRASS SCREWS



Style No. 1
Per 100

Size thread	Diameter head, in.	Length, inches	Per 100
4-36	1/8	1/2	\$1.50
6-32	3/16	3/4	\$1.90
8-32	1/4	1	2.10
10-24	5/16	1 1/4	2.40
10-32	3/8	1 1/2	2.80
12-24	7/8	2	3.00
14-20	1	2 1/2	3.50

100 in a box.

HOT PRESSED NUTS

THREADED

U. S. Standard Thread
List Adopted April 1, 1927



Square



Hexagon

SQUARE

For bolt, in.	Thrs. per in.	Width, in.	Thickness, in.	Hole, in.	No. in keg	Wt. per 1000, lbs.	Per 100
1/4	20	1/2	1/4	1/8	14000	14.3	.55
3/8	18	5/8	3/8	1/4	8400	24.2	.75
1/2	16	3/4	1/2	3/8	5000	38.4	1.05
5/8	14	7/8	5/8	1/2	3150	57.0	1.50
3/4	13	1	3/4	5/8	2800	79.8	2.00
7/8	12	1 1/8	7/8	3/4	2000	107.0	2.30
1	11	1 1/4	1	7/8	1500	144.0	2.70
1 1/8	10	1 1/2	1 1/8	1	900	231.0	3.80
1 1/4	9	1 3/4	1 1/4	1 1/8	550	354.0	6.10
1 1/2	8	1 7/8	1 1/2	1 1/4	450	514.0	8.30
1 3/4	7	2	1 3/4	1 1/2	300	716.0	11.90
1 5/8	6	2 1/8	1 5/8	1 3/4	225	997.0	15.60
1 7/8	6	2 3/8	1 7/8	1 5/8	175	1313.0	21.00
2	6	2 1/2	2	1 7/8	130	1675.0	28.15

HEXAGON

For bolt, in.	Thrs. per in.	Width, in.	Thickness, in.	Hole, in.	No. in keg	Wt. per 1000, lbs.	Per 100
1/4	20	1/2	1/4	1/8	15000	12.0	\$ 0.65
3/8	18	5/8	3/8	1/4	9000	20.0	.90
1/2	16	3/4	1/2	3/8	6000	32.0	1.20
5/8	14	7/8	5/8	1/2	3600	47.0	1.75
3/4	13	1	3/4	5/8	3300	67.0	2.25
7/8	12	1 1/8	7/8	3/4	2300	90.0	2.55
1	11	1 1/4	1	7/8	1800	119.0	3.00
1 1/8	10	1 1/2	1 1/8	1	1000	192.0	4.30
1 1/4	9	1 3/4	1 1/4	1 1/8	650	292.0	6.80
1 1/2	8	1 7/8	1 1/2	1 1/4	500	423.0	9.30
1 3/4	7	2	1 3/4	1 1/2	350	585.0	13.10
1 5/8	6	2 1/8	1 5/8	1 3/4	270	812.0	17.35
1 7/8	6	2 3/8	1 7/8	1 5/8	200	1053.0	23.30
2	6	2 1/2	2	1 7/8	150	1365.0	31.30

SEMI-FINISHED SLOTTED NUTS

HEXAGON, TAPPED

American Standard Heavy
(U. S. S.) Thread

List Adopted April 1, 1927



Bolt, in.	Width, in.	Thickness, in.	Width of slot, in.	Depth of slot, in.	Size cotter pin, in.	Per 100
1/4	1/2	1/4	1/8	1/16	1/8	\$ 1.40
3/8	5/8	3/8	1/4	1/16	3/16	1.65
1/2	3/4	1/2	1/2	1/16	1/4	2.15
5/8	7/8	5/8	3/4	1/16	5/16	2.90
3/4	1	3/4	1	1/16	3/8	3.40
7/8	1 1/8	7/8	1 1/4	1/16	1/2	4.40
1	1 1/4	1	1 1/2	1/16	5/8	5.40
1 1/8	1 1/2	1 1/8	1 3/4	1/16	3/4	8.40
1 1/4	1 3/4	1 1/4	2	1/16	7/8	9.00
1 1/2	2	1 1/2	2 1/4	1/16	1	14.40

Open stock.

SEMI-FINISHED CASTELLATED NUTS



HEXAGON, TAPPED

American Standard Light (S.A.E.) Thread

List Adopted April 1, 1927

Bolt, in.	No. threads to inch	Total thickness, in.	Diam. across flats	Depth slot, in.	Width slot, in.	Diam. cotter pin, in.	Per 100
1/4	28	3/8	1/2	3/8	3/8	1/8	\$1.32
5/16	24	3/4	5/8	3/8	3/8	1/8	1.55
3/8	24	3/4	1	1/2	1/2	3/8	1.84
7/8	20	3/4	1 1/8	1/2	1/2	3/8	2.30
1/2	20	1	1 1/4	1/2	1/2	3/8	3.28
5/8	18	1 1/8	1 1/2	1/2	1/2	1/2	4.83
3/4	18	1 1/8	1 3/4	1/2	1/2	1/2	5.64
7/8	16	1 1/8	1 7/8	1/2	1/2	1/2	8.97
1	14	1 1/8	2	1/2	1/2	1/2	12.36
1 1/4	14	1 1/8	2 1/4	1/2	1/2	1/2	18.40

THUMB SCREWS

PARKER-KALON

Cold-Forged

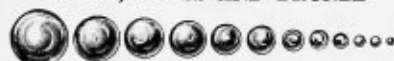
Heads nicely shaped and well proportioned. The knurling provides a firm finger grip. Rolled-threaded to close limits.

3/16 in. Diam., 24 Threads, 19/32 in. Wide Head						
Length, in.	1/2	3/4	1	1 1/4	1 1/2	
Wt. per 100, lbs.	5/8	3/4	1	1 1/4	1 1/2	
Per 100	\$1.00	1.05	1.10	1.15	1.25	
1/4 in. Diam., 20 Threads, 13/16 in. Wide Head						
Length, in.	1/2	3/4	1	1 1/4	1 1/2	
Wt. per 100, lbs.	1 1/8	1 1/2	2	2 1/4	2 1/2	
Per 100	\$1.15	1.20	1.25	1.35	1.45	
5/16 in. Diam., 18 Threads, 1 in. Wide Head						
Length, in.	3/4	1	1 1/4	2	2 1/2	
Wt. per 100, lbs.	2 3/4	3 1/4	4	4 3/4	5 1/4	
Per 100	\$1.60	1.70	1.90	2.15	2.50	
3/8 in. Diam., 16 Threads, 1 1/8 in. Wide Head						
Length, in.	1	1 1/4	2	2 1/2	3	
Wt. per 100, lbs.	4 3/4	6	7 1/4	8 1/2	9 3/4	
Per 100	\$2.15	2.50	2.90	3.40	4.00	

1/2 x 2 1/2, 3/8 x 2 1/2 and 3/4 x 3 in., fifty; balance, one hundred in a box.

HOOVER METAL BALLS

STEEL, BRASS AND BRONZE



Hardware Grade Steel

Made of special grade of high carbon chrome steel. Spherical within .001 of an inch.

Brass and Bronze

Made of highly developed material and are the ultimate in resistance to corrosion, spherical accuracy, uniform hardness and perfection of surface finish. Spherical within .0002 of an inch.

Hardware Grade Steel Balls		Brass and Bronze Balls	
Size, in.	Per 1000	Size, in.	Per 1000
1/8	\$ 7.50	1/8	\$95.00
3/16	6.50	3/16	120.00
1/4	4.00	1/4	135.00
5/16	4.50	5/16	148.00
3/8	5.00	3/8	160.00
1/2	6.00	1/2	176.00
5/8	8.00	5/8	192.00
3/4	10.00	3/4	205.00
7/8	12.00	7/8	220.00
1	15.00	1	240.00
1 1/8	19.00	1 1/8	270.00
1 1/4	23.00	1 1/4	355.00
1 1/2	28.00	1 1/2	440.00
1 3/4	34.00	1 3/4	530.00
2	40.00	2	630.00
2 1/4	47.00	2 1/4	740.00
2 1/2	55.00	2 1/2	860.00
2 3/4	63.00	2 3/4	980.00
3	72.00	3	1100.00
3 1/2	81.00		

STANDARD STEEL TAPER PINS

List of Dec. 16, 1935
Taper 1/4 Inch to the Foot
Price Per 100
Polished and Finished



Nos.	00	0	1	2	3	4
Diam. at large end, in.	.141	.156	.172	.193	.219	.250
App. fract'nal sizes, in.	3/16	1/8	1/4	3/8	1/2	5/8
Length 1/2 inch	\$1.80	1.80	2.00	2.20	2.40	2.70
Length 3/4 inch	1.80	2.10	2.30	2.50	2.70	3.00
Length 1 inch	2.10	2.40	2.60	2.80	3.00	3.30
Length 1 1/4 inches	2.40	2.70	2.90	3.10	3.30	3.60
Length 1 1/2 inches	2.70	3.00	3.20	3.40	3.60	3.90
Length 2 inches	3.00	3.30	3.50	3.70	3.90	4.20
Length 2 1/4 inches	3.30	3.60	3.80	4.00	4.20	4.50
Length 2 1/2 inches	3.60	3.90	4.10	4.30	4.50	4.80
Length 3 inches	3.90	4.20	4.40	4.60	4.80	5.10

Nos.	5	6	7	8	9	10
Diam. at large end, in.	.289	.341	.409	.492	.591	.706
App. fract'nal sizes, in.	3/8	1/2	3/4	1	1 1/4	1 1/2
Length 1 inch	\$3.30	3.60	4.50	5.00	5.50	6.00
Length 1 1/4 inches	3.60	4.50	5.00	5.50	6.00	6.50
Length 1 1/2 inches	3.90	4.80	5.30	5.80	6.30	6.80
Length 2 inches	4.20	5.10	5.60	6.10	6.60	7.10
Length 2 1/4 inches	4.50	5.40	5.90	6.40	6.90	7.40
Length 2 1/2 inches	4.80	5.70	6.20	6.70	7.20	7.70
Length 3 inches	5.10	6.00	6.50	7.00	7.50	8.00
Length 3 1/4 inches	5.40	6.30	6.80	7.30	7.80	8.30
Length 3 1/2 inches	5.70	6.60	7.10	7.60	8.10	8.60
Length 4 inches	6.00	6.90	7.40	7.90	8.40	8.90
Length 4 1/4 inches	6.30	7.20	7.70	8.20	8.70	9.20
Length 4 1/2 inches	6.60	7.50	8.00	8.50	9.00	9.50
Length 5 inches	6.90	7.80	8.30	8.80	9.30	9.80
Length 5 1/4 inches	7.20	8.10	8.60	9.10	9.60	10.10
Length 5 1/2 inches	7.50	8.40	8.90	9.40	9.90	10.40
Length 6 inches	7.80	8.70	9.20	9.70	10.20	10.70

WOODRUFF KEYS

STANDARD

Carbon or Nickel Steel



Nos.	Size, in.	Wt. per 100, lbs.	Carbon Per 100	Nickel Per 100
5	5/8 x 1/8	.41	\$0.33	\$0.44
6	5/8 x 3/8	.50	.42	.54
61	5/8 x 1/2	.60	.50	.65
7	3/4 x 1/8	.60	.40	.54
8	3/4 x 3/8	.78	.49	.64
9	3/4 x 1/2	.94	.56	.78
10	7/8 x 1/8	1.13	.70	.96
11	7/8 x 3/8	1.35	.80	1.12
12	7/8 x 1/2	1.57	.90	1.30
A	7/8 x 3/4	1.82	1.02	1.45
13	1 x 1/8	1.82	1.00	1.45
14	1 x 3/8	2.09	1.18	1.70
15	1 x 1/2	2.32	1.30	1.90
B	1 x 3/4	2.88	1.55	2.30
16	1 1/8 x 1/8	2.19	1.25	1.80
17	1 1/8 x 3/8	2.60	1.45	2.05
18	1 1/8 x 1/2	3.00	1.70	2.35
C	1 1/8 x 3/4	3.63	2.05	2.80
161	1 1/8 x 1	3.50	2.20	3.00
19	1 1/4 x 1/8	2.84	1.60	2.25
20	1 1/4 x 3/8	3.32	1.85	2.65
21	1 1/4 x 1/2	3.63	2.05	2.90
D	1 1/4 x 3/4	4.63	2.45	3.55
E	1 1/4 x 1	5.50	2.85	4.20

STEEL SPRING COTTERS STANDARD



Length measured from under eye.
Per Thousand, List August 11, 1932

Length, in.	Diam., in.				
	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$
$\frac{1}{2}$	\$0.35	\$0.40	\$0.55	....	....
$\frac{3}{4}$	.45	.53	.75	\$1.20	\$1.70
1	.55	.65	.90	1.45	2.05
$1\frac{1}{4}$	.65	.78	1.10	1.70	2.40
$1\frac{1}{2}$	.75	.90	1.25	1.95	2.75
$1\frac{3}{4}$	.95	1.03	1.45	2.20	3.10
2	1.05	1.15	1.60	2.45	3.45
$2\frac{1}{4}$	....	....	....	2.70	3.80
$2\frac{1}{2}$	....	1.55	2.00	2.95	4.15
3	....	....	2.50	3.45	5.00
$3\frac{1}{2}$	....	....	....	....	5.75
4	....	....	....	....	6.50

Length, in.	Diam., in.				
	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
1	\$3.40	\$ 5.30	....	....	....
$1\frac{1}{4}$	4.00	6.20	....	....	....
$1\frac{1}{2}$	4.60	7.10	\$10.50	....	....
$1\frac{3}{4}$	5.20	8.05	....	....	....
2	5.80	9.00	13.00	\$25.00	....
$2\frac{1}{4}$	6.40	9.90	....	....	....
$2\frac{1}{2}$	7.00	10.80	15.50	30.00	....
3	7.80	11.70	18.00	35.00	\$57.50
$3\frac{1}{2}$	8.60	13.90	20.50	40.00	64.75
4	9.40	16.10	23.00	45.00	72.00
5	....	18.30	27.00	55.00	85.00
6	....	....	31.00	65.00	98.00

Note: $\frac{1}{8}$ in., $\frac{3}{16}$ in., $\frac{1}{4}$ in., $\frac{5}{16}$ in., $\frac{3}{8}$ in., $\frac{1}{2}$ in. and $\frac{5}{8}$ in. diameters are not listed, but are furnished to the extent that they may be in stock, or when required in sufficient quantities of a size to warrant being made up. These sizes will take the list of the next larger diameter.

Intermediate lengths take next longer list. Sizes longer than shown on list add one and one-half times last list differential for each unit of length or fraction thereof.

Quantity of Couters in Standard Carton

Diam., in.	Length, inches	Per carton	Diam., in.	Length, inches	Per carton
$\frac{1}{8}$	All	1000	$\frac{1}{4}$	Longer	250
$\frac{3}{16}$ & $\frac{1}{4}$	Up to $1\frac{1}{2}$	1000	$\frac{5}{16}$	Up to 4	250
$\frac{1}{4}$ & $\frac{5}{16}$	Longer	500	$\frac{3}{8}$	Longer	125
$\frac{5}{16}$	Up to 1	1000	$\frac{1}{2}$	1 to $1\frac{1}{4}$	250
$\frac{3}{8}$	$1\frac{1}{4}$ to $1\frac{1}{2}$	500	$\frac{5}{8}$	$1\frac{1}{2}$ to 3	125
$\frac{1}{2}$	Longer	250	$\frac{3}{4}$	Longer	Bulk
$\frac{5}{8}$	Up to $\frac{3}{4}$	1000	$\frac{7}{8}$ to $\frac{1}{2}$	All	Bulk
$\frac{3}{4}$	1 to $1\frac{1}{2}$	500			

BRASS SPRING COTTERS



Per 1000

Length, in.	Diam., in.					
	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
$\frac{1}{2}$	\$2.10	\$2.40	\$3.30	....	....	....
$\frac{3}{4}$	2.70	3.18	4.50	\$ 7.20	\$10.20	....
1	3.30	3.90	5.40	8.70	12.30	\$20.40
$1\frac{1}{4}$	3.90	4.68	6.60	10.20	14.40	24.00
$1\frac{1}{2}$	4.50	5.40	7.50	11.70	16.50	27.60
2	6.30	6.90	9.60	14.70	20.70	34.80
$2\frac{1}{2}$	....	9.30	12.00	17.70	24.90	42.00

PORCH SWING SPRINGS RAYMOND "SWING EASY"



Tempered steel wire, baked elastic black japan.

Per pair
No. R1—8 $\frac{1}{2}$ in. long, $1\frac{1}{8}$ in. diam.; wt. per pair 3 $\frac{3}{4}$ lbs. \$1.00
No. R2—7 $\frac{1}{2}$ in. long, $1\frac{1}{4}$ in. diam.; wt. per pair 1 $\frac{3}{4}$ lbs. .50
One pair in a carton.

BABY JUMPER SPRINGS RAYMOND SAFETY



A symmetrical safety spring of extension type, with stop hooks inside of spring.

An "S" hook is clamped to each end, which makes adjustment with any make of baby swing. Nickel plated finish.

Each
No. R5—11 $\frac{1}{2}$ in. long over all; 1 in. diam.; wt. each $\frac{5}{8}$ lb. \$0.35
One in a carton.

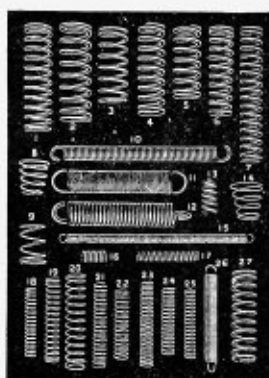
EXTENSION SPRINGS



No. 12 wire, japanned finish.

Each
No. R412—4 in. long over all, $\frac{3}{16}$ in. diam.; wt. per dozen 1 $\frac{1}{2}$ lbs. \$0.10
Twelve in a carton.

SPRING ASSORTMENTS



No. R48—Assortment

This assortment includes steel, music wire, brass and phosphor bronze springs. A very complete assortment for the hardware store, machine or repair shop. Assortment contains springs for shop and household use such as automotive springs, washing machine springs, lock springs and many others.

Per assortment
No. R48 Assortment—Consists of 48 springs of 7 different types and tensions; wt. per assortment 2 lbs. \$1.35
One assortment in a box.

Complete Hardware Assortment



Assortment contains springs essential for automotive, machine shop and household use. In labeled compartment steel tray, 27x19x3 in., olive green finish.

Per assortment
No. 519 Assortment—Consists of 604 springs, 50 sizes; wt. per assortment 57 lbs. \$64.00
One assortment in a box.

LOCK WASHERS ANTI-LINK



S. A. E. Standard Sizes
Will not tangle or interlink.

Bolt size, in.	Size steel, in.	S.A.E. Class.	Wt. per 1000, lbs.	Per 1000	Bolt size, in.	Size steel, in.	S.A.E. Class.	Wt. per 1000, lbs.	Per 1000
$\frac{1}{8}$	$\frac{1}{8}$ x $\frac{3}{4}$	Std.	$\frac{1}{2}$	\$1.75	$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Hvy.	17 $\frac{1}{4}$	\$11.90
$\frac{1}{8}$	$\frac{1}{8}$ x $\frac{3}{4}$	Lgt.	$\frac{1}{2}$	1.75	$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	15 $\frac{5}{8}$	10.25
$\frac{1}{8}$	$\frac{1}{8}$ x $\frac{1}{2}$	Hvy.	$\frac{1}{2}$	1.75	$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	11 $\frac{1}{2}$	8.40
$\frac{1}{4}$	$\frac{1}{4}$ x $\frac{1}{2}$	Std.	1 $\frac{1}{2}$	2.25	$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Hvy.	23 $\frac{1}{2}$	15.35
$\frac{1}{4}$	$\frac{1}{4}$ x $\frac{1}{2}$	Lgt.	1 $\frac{1}{2}$	2.10	$\frac{5}{8}$	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	23 $\frac{3}{4}$	15.80
$\frac{1}{4}$	$\frac{1}{4}$ x $\frac{3}{4}$	Hvy.	2 $\frac{1}{2}$	2.35	$\frac{5}{8}$	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	14 $\frac{1}{2}$	12.50
$\frac{1}{4}$	$\frac{1}{4}$ x $\frac{1}{2}$	Std.	3 $\frac{1}{2}$	3.00	$\frac{5}{8}$	$\frac{1}{2}$ x $\frac{1}{2}$	Hvy.	31 $\frac{1}{2}$	20.80
$\frac{1}{4}$	$\frac{1}{4}$ x $\frac{3}{4}$	Lgt.	2 $\frac{1}{2}$	2.75	$\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	43	25.60
$\frac{1}{4}$	$\frac{1}{4}$ x $\frac{1}{2}$	Hvy.	5 $\frac{1}{2}$	3.35	$\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	27 $\frac{1}{2}$	20.70
$\frac{3}{8}$	$\frac{3}{8}$ x $\frac{1}{2}$	Std.	5	3.75	$\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{2}$	Hvy.	55 $\frac{1}{2}$	34.00
$\frac{3}{8}$	$\frac{3}{8}$ x $\frac{1}{2}$	Lgt.	3 $\frac{1}{2}$	3.60	$\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	51 $\frac{1}{2}$	39.30
$\frac{3}{8}$	$\frac{3}{8}$ x $\frac{3}{4}$	Hvy.	7 $\frac{1}{2}$	4.80	$\frac{3}{4}$	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	42	37.50
$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	10 $\frac{1}{4}$	6.40	$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Hvy.	73	51.60
$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	5	5.15	1	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	90 $\frac{1}{2}$	65.70
$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{3}{4}$	Hvy.	12 $\frac{1}{2}$	8.30	1	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	64 $\frac{1}{2}$	60.00
$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Std.	13 $\frac{1}{2}$	7.60	1	$\frac{1}{2}$ x $\frac{1}{2}$	Hvy.	113 $\frac{1}{2}$	71.00
$\frac{1}{2}$	$\frac{1}{2}$ x $\frac{1}{2}$	Lgt.	6 $\frac{1}{2}$	5.80					

LIGHT STEEL WASHERS



In 200 Pound Kegs
Specify light steel, and bolt sizes.

Bolt Sizes, in.	I. D., in.	O. D., in.	Approx. thickness, in.	Approx. number per pound	Per pound
$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	500	\$0.45
$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	425	.40
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$	240	.34
$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	100	.30
$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$	80	.28
$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	35	.26
$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	30	.25
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	20	.24
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	16	.24
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	12	.24
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	8	.24
1	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	6	.24

S.A.E. STEEL WASHERS



Used Largely in Automotive Trade
Specify "S. A. E." and bolt sizes.

Bolt Sizes, in.	I. D., in.	O. D., in.	Approx. thickness, in.	Approx. number per pound	Per pound
$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	825	\$0.60
$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	325	.45
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$	220	.40
$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	200	.40
$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$	130	.40
$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	105	.35
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	55	.35
$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	45	.35
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	35	.35
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	20	.30
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	16	.30
1	$\frac{1}{2}$	2	$\frac{1}{4}$	12	.30

STANDARD WROUGHT WASHERS



U. S. STANDARD SIZES
Standard List, July 15, 1935

Bolt size, in.	Outside diam., in.	Size of hole, in.	Thickness wire gauge and inch	Average number in 100 pounds	Per hundred pounds
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{4}$	No. 18 ($\frac{3}{4}$)	36,200	\$14.00
$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{2}$	No. 16 ($\frac{1}{2}$)	14,900	12.20
$\frac{1}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	No. 16 ($\frac{1}{2}$)	11,100	11.40
$\frac{3}{8}$	1	$\frac{1}{2}$	No. 14 ($\frac{3}{4}$)	6,700	10.50
$\frac{1}{2}$	1 $\frac{1}{4}$	$\frac{3}{4}$	No. 14 ($\frac{3}{4}$)	4,100	9.80
$\frac{1}{2}$	1 $\frac{1}{4}$	$\frac{1}{2}$	No. 12 ($\frac{3}{4}$)	2,600	9.40
$\frac{3}{4}$	1 $\frac{1}{2}$	$\frac{3}{4}$	No. 12 ($\frac{3}{4}$)	2,200	9.30
$\frac{3}{4}$	1 $\frac{1}{2}$	$\frac{1}{2}$	No. 10 ($\frac{3}{4}$)	1,300	9.30
1	2	$\frac{1}{2}$	No. 9 ($\frac{3}{4}$)	910	9.20
$\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{1}{2}$	No. 8 ($\frac{3}{4}$)	652	9.20
$\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{1}{2}$	No. 8 ($\frac{3}{4}$)	532	9.20
$\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{1}{2}$	No. 8 ($\frac{3}{4}$)	454	9.20
$\frac{1}{2}$	3	$\frac{1}{2}$	No. 8 ($\frac{3}{4}$)	384	9.20
$\frac{1}{2}$	3 $\frac{1}{4}$	$\frac{1}{2}$	No. 7 ($\frac{3}{4}$)	300	9.20
$\frac{1}{2}$	3 $\frac{1}{4}$	$\frac{1}{2}$	No. 7 ($\frac{3}{4}$)	260	9.20

200 pounds in a keg.

BRASS WASHERS



REGULAR
Small Pattern

Size Washer, Screw or Bolt	Outside diam., in.	Inside diam., in.	Thickness, in.	Approx. number in pound	Per pound
No. 3	$\frac{1}{4}$	.105	.020	4016	\$2.00
No. 4	$\frac{3}{8}$	.119	.025	2572	1.50
No. 6	$\frac{1}{2}$	.147	.028	1949	1.25
No. 8	$\frac{3}{4}$	.172	.032	1165	1.00
No. 10	$\frac{1}{2}$	.200	.036	760	.90
No. 12	$\frac{1}{2}$	.227	.040	522	.80
No. 14	$\frac{1}{2}$	.260	.040	417	.80
No. 16	$\frac{3}{4}$	.282	.040	333	.75
No. 18	$\frac{1}{2}$	.310	.051	216	.75
No. 20	$\frac{3}{4}$	.337	.064	144	.75
No. 24	$\frac{1}{2}$	.391	.064	106	.75

Large Pattern

No. 8	$\frac{1}{2}$	.172	.036	711	\$0.90
No. 10	$\frac{1}{2}$	.200	.040	494	.80
No. 12	$\frac{1}{2}$	.227	.040	391	.80
No. 14	$\frac{1}{2}$	.260	.051	200	.75
No. 16	$\frac{3}{4}$	.282	.064	134	.75
No. 18	$\frac{1}{2}$	.310	.064	97	.75
No. 20	$\frac{3}{4}$	.337	.064	96	.75
No. 25	1	.391	.081	60.4	.70

Bolt Sizes

$\frac{1}{8}$	$\frac{1}{2}$	.200	.040	494	\$0.80
$\frac{1}{4}$	$\frac{1}{2}$	.260	.051	200	.75
$\frac{1}{4}$	$\frac{1}{2}$	.337	.064	96	.75
$\frac{3}{8}$	1	.391	.081	60.4	.70
$\frac{1}{2}$	$1\frac{1}{2}$	$\frac{1}{2}$	.081	50	.70
$\frac{1}{2}$	$1\frac{1}{2}$	$\frac{1}{4}$	.091	36.5	.70
$\frac{5}{8}$	$1\frac{1}{2}$	$\frac{1}{4}$	.102	22.8	.70
$\frac{3}{4}$	$1\frac{1}{2}$	$\frac{1}{4}$	.114	12.7	.70
$\frac{7}{8}$	$2\frac{1}{4}$	$\frac{1}{8}$	.128	7.7	.70
1	$2\frac{1}{2}$	$1\frac{1}{4}$	.144	5.6	.70

One pound in a box.

BEVELED STEEL WASHERS



Made of cold rolled steel, finished with a neat beveled edge. Flat with holes concentric. Bright smooth finish.

Bolt size, in.	Outside diam., in.	Inside diam., in.	Thickness, in.	Approx. No. to lb.	Per 1000
$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{16}$	345	\$2.30
$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{16}$	305	3.70
$\frac{5}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	$\frac{1}{16}$	161	4.20
$\frac{3}{4}$	$1\frac{1}{8}$	$\frac{7}{8}$	$\frac{1}{16}$	120	4.40
$1\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{1}{8}$	$\frac{1}{16}$	68.3	6.40

1000 in a package.

MALLEABLE IRON WASHERS



No. 10—Standard pattern, with positive nut locking device

Size bolt, in.	Diam., in.	Thick., in.	Wt. lbs., per 100	Comparative wt. cast washers	Per pound
$\frac{1}{2}$	$2\frac{1}{2}$	$\frac{1}{4}$	15	45	\$0.15
$\frac{5}{8}$	$2\frac{3}{4}$	$\frac{1}{4}$	22	66	.15
$\frac{3}{4}$	3	$\frac{1}{4}$	33	100	.15
$\frac{7}{8}$	$3\frac{1}{2}$	$\frac{1}{4}$	50	150	.15
1	4	$\frac{1}{2}$	68	200	.15
$1\frac{1}{8}$	$4\frac{1}{2}$	$\frac{1}{2}$	87	262	.15
$1\frac{1}{4}$	5	$\frac{5}{8}$	150	450	.15
$1\frac{1}{2}$	6	$\frac{3}{4}$	190	575	.15

200 pounds in a keg.

CAST IRON WASHERS



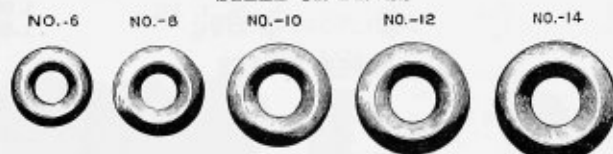
Ogee Pattern

Size bolt, in.	Hole, in.	Diam., in.	Thick., in.	Wt. each	Per 100 lbs.
$\frac{1}{2}$	$\frac{5}{8}$	$2\frac{1}{2}$	$\frac{1}{2}$	7 ozs.	\$10.00
$\frac{5}{8}$	$\frac{3}{4}$	3	$\frac{5}{8}$	12 ozs.	10.00
$\frac{3}{4}$	$\frac{7}{8}$	3	$\frac{3}{4}$	1 lb.	10.00
$\frac{7}{8}$	1	$3\frac{1}{2}$	$\frac{7}{8}$	1 lb. 6 ozs.	10.00
1	$1\frac{1}{8}$	4	1	2 lbs.	10.00

200 pounds in a keg.

COUNTERSUNK FINISHING WASHERS

STEEL OR BRASS



Made to accommodate heads of oval headed wood screws, machine screws and stove bolts.

Screw size	Outside diam., in.	Inside diam., in.	Gauge	Steel per 1000	Brass per 1000	N. P. Brass per 1000
6	$\frac{11}{16}$	$\frac{1}{2}$	.014	\$1.10	\$1.50	\$1.75
8	$\frac{11}{16}$	$\frac{3}{4}$	.014	1.25	1.75	2.00
10	$\frac{5}{8}$	$\frac{1}{2}$	.018	1.50	2.25	2.75
12	$\frac{11}{16}$	$\frac{3}{4}$	.018	2.00	3.00	3.50
14	$\frac{11}{16}$	$\frac{3}{4}$	.018	2.25	3.50	4.00

1000 in a package.

LEAD WASHERS



For Use with Steel Roofing and Siding

Make an absolutely water-tight joint on any surface, whether concave, convex or flat. One pound will put on 2 to 3 squares.

No. 2— $\frac{1}{2}$ in. diameter, $\frac{3}{8}$ in. hole; about 325 to the lb. . . . \$0.25
50 pounds in a box.

IRON RIVETS



Flat, Round or Countersunk Heads

Annealed Soft

List Adopted May 19, 1920 Price per pound in 200 lb. kegs

Diam., in.	Length, inches					
$\frac{1}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
$\frac{1}{8}$	\$0.33	.32	.29	.26	.22	.22
$\frac{3}{8}$	.24	.23	.22	.21	.19	.19
$\frac{1}{2}$	.23	.22	.21	.20	.18	.18
$\frac{5}{8}$	.22	.21	.20	.20	.18	.18
$\frac{3}{4}$	.20	.20	.19	.19	.17	.17
$\frac{7}{8}$	...	.20	.18	.18	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$
$\frac{1}{2}$	...	.20	.18	.17	.16	.16

Diam., in.	Length, inches			
$\frac{1}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 to 2	$2\frac{1}{4}$ to $3\frac{1}{2}$
$\frac{1}{8}$	\$0.21 $\frac{1}{2}$	.21 $\frac{1}{2}$	.21	.....
$\frac{3}{8}$	.18 $\frac{1}{2}$	.18 $\frac{1}{2}$	.18	.....
$\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17	.20
$\frac{5}{8}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17	.20
$\frac{3}{4}$	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$	.16	.18
$\frac{7}{8}$	.16	.16	.15 $\frac{1}{2}$	.17 $\frac{1}{2}$
$\frac{1}{2}$	.15 $\frac{1}{2}$	.15 $\frac{1}{2}$	.15	.17

Advance for Quantity

100 lb. kegs add 1c to above list.
50 lb. boxes add 3c to above list.
25 lb. boxes all 4c to above list.
5 or 10 lb. boxes add 5c to above list.
1 lb. boxes add 8c to above list.

FLAT HEAD, TINNED RIVETS

Diam., in.	Length, inches			
$\frac{1}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	1
$\frac{1}{8}$	Same lists as above plus an additional net charge for tinning.			

SOLID STEEL RIVETS

Sizes, $\frac{1}{2}$ Inch Diameter and Larger
Standard Styles of Head; Button and Cone.
Base Diameters: $\frac{3}{4}$ and $\frac{1}{2}$ Inch; Base Lengths, 2 to 5 Inch Inclusive
In Kegs or Bags of 200 to 300 pounds.
Base Price Per Hundred Weight.

	Per 100 lbs.
1. $\frac{1}{2}$ inch diameter.....	\$0.35
2. $\frac{5}{8}$ inch diameter.....	.15
3. 1 inch diameter.....	.05
4. $1\frac{1}{8}$ inch diameter.....	.15
5. $1\frac{1}{4}$ inch diameter.....	.25
6. $\frac{1}{8}$ inch, $\frac{1}{4}$ inch, $\frac{3}{8}$ inch, $\frac{1}{2}$ inch and $1\frac{1}{8}$ inch diameters subject to same extras as nearest smaller diameters, plus 25 cents net per 100 pounds.	
7. Lengths 1 inch and shorter.....	.25
8. Lengths longer than 1 inch up to and including $1\frac{1}{2}$ inches.....	.15
9. Lengths longer than 5 inches.....	.25
10. Steeple Head Rivets.....	.25
11. Standard Countersunk Head Rivets.....	.25
12. Pan Head Rivets.....	.15
13. Swell Neck Rivets.....	.10
14. Special shape or sized heads other than style and standard above listed, price on application.	
15. Annealing Rivets for cold driving.....	.50
16. Rivets packed in 100 to 199 pound kegs.....	.50
17. Reinforcing kegs or packing in bags for export net extra per package.....	.25
18. Packing in boxes, for export, price on application.	
19. Broken packages of less than 100 pounds of a size \$1.00 net extra will be added for each package.	
20. Cost of testing and inspection, if any, to be at customer's expense.	

RIVETING BURRS WROUGHT STEEL



Black

In one pound boxes.

Size	Outside diam., in.	Size hole	Gauge No.	Per lb.
6	1/2	.214	17	\$0.46
7	5/8	.189	17	.47
8	3/4	.174	17	.48
9	7/8	.156	17	.49
10	1	.141	20	.51
11	1 1/8	.126	20	.54
12	1 1/4	.114	20	.64

Note—Tinned Riveting Burrs same list as above plus an additional net charge for tinning.



Annealed

For Rivets, Inches.....	1/8	3/8	1/4
Outside diameter, inches.....	3/8	1/2	5/8
Per pound	\$0.61	.43	.37

Five pounds in a box.

TINNERS' RIVETS



Black

Manufacturers' List, Adopted May 19, 1920
1000 in a Package

Size	Diam., in.	Lgth., in.	Per 1000	Size	Diam., in.	Lgth., in.	Per 1000
6 oz.	.083	1/8	\$0.28	4 lb.	.176	3/4	\$1.20
8 oz.	.089	3/8	.32	5 lb.	.186	3/8	1.30
10 oz.	.095	1/2	.36	6 lb.	.205	3/4	1.50
12 oz.	.106	5/8	.41	7 lb.	.220	3/4	1.75
14 oz.	.109	3/4	.45	8 lb.	.225	1	2.00
1 lb.	.112	7/8	.48	9 lb.	.238	3/4	2.20
1 1/4 lb.	.120	1	.54	10 lb.	.240	3/4	2.40
1 1/2 lb.	.130	1 1/8	.62	12 lb.	.259	1 1/2	2.64
1 3/4 lb.	.134	1 1/4	.67	14 lb.	.284	1 1/2	3.08
2 lb.	.145	1 1/2	.72	16 lb.	.300	1 3/4	3.52
2 1/4 lb.	.148	1 3/4	.83	18 lb.	.343	1 3/4	3.78
3 lb.	.161	2	.96	20 lb.	.375	1 3/4	4.20
3 1/2 lb.	.165	2 1/8	1.09				

Note—Tinned Tinner's Rivets same list as above plus an additional net charge for tinning.

TUBULAR RIVETS JAPANNED



No. 1J—Japanned, Diameter of Head 5/8 Inch, Diameter Body 3/8 Inch
Packed in 50 and 100 Count Boxes.

Uniform Lengths

Length, inches	4/16	5/16	6/16	7/16
Boxes of 50.....	Per dozen \$1.36	1.42	1.47	1.51
Boxes of 100.....	Per dozen 2.36	2.47	2.60	2.68

Length, inches	8/16	9/16	10/16
Boxes of 50.....	Per dozen \$1.57	1.65	1.70
Boxes of 100.....	Per dozen 2.79	2.91	3.02

Assorted Lengths

4/16 to 8/16 in.—50 in a box.....	\$1.44
4/16 to 8/16 in.—100 in a box.....	2.53

BRASS

No. 738—Diameter Body 3/8 Inch, Diameter Head 5/8 Inch
Uniform in lengths, packed in 100 and 1000 count boxes.

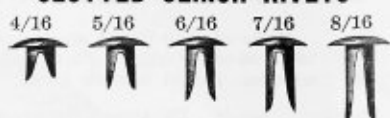
Length, inches	5/16	6/16	8/16	10/16
Boxes of 1000.....	Each \$3.30	3.50	4.20	4.90
Boxes of 100.....	Per dozen 4.50	4.80	5.70	6.80

BRASS JACKET RIVETS

Oval Head, 1/4 Inch

Nos.	8	10	12
Per pound	\$1.00	1.00	1.00

SLOTTED CLINCH RIVETS



Actual Size of Rivets.

No. 9—Coppered, 50 Rivets in a Box
Diameter of Head 5/8 Inch, Body 3/8 Inch

Length, inches	4/16	5/16	6/16	7/16
Per dozen boxes.....	\$1.02	1.02	1.06	1.09
Length, inches	8/16	9/16	10/16	12/16
Per dozen boxes.....	\$1.12	1.18	1.21	1.38

Assorted Lengths

4/16 to 8/16 in.—50 in a box.....	\$0.89
4/16 to 8/16 in.—100 in a box.....	1.52

BRAKE BAND RIVETS BRASS CLINCH



No. 2970—Diameter of Head 5/8 Inch, Diameter of Body 3/8 Inch
A hand tool for holding rivets included with each box.

Packed 100 or 1000 in a box.

Length, inches	5/16	6/16	7/16
Boxes of 1000.....	Per box \$2.70	2.90	3.10
Boxes of 100.....	Per dozen 3.70	4.00	4.20

Length, inches	8/16	10/16	12/16
Boxes of 1000.....	Per box \$3.30	4.10	4.60
Boxes of 100.....	Per dozen 4.50	5.60	6.30

SOLID COPPER



Solid Copper, in 1 Pound Boxes

Nos.	Diam. body, in.	Diam. head, in.	Lengths, in.	Per lb.
12	1 1/8	1 1/4	3/8, 1/2, 5/8, 3/4, 1	\$1.20
10	1	1 1/8	3/8, 1/2, 5/8, 3/4, 1	1.13
9	3/4	1 1/8	3/8, 1/2, 5/8, 3/4, 1	1.09
8	3/4	1 1/8	3/8, 1/2, 5/8, 3/4, 1	1.06
7	3/4	1 1/8	1/2, 5/8, 3/4, 1	1.04
6	3/4	1 1/8	1/2, 5/8, 3/4, 1	1.02
5	1 1/4	1 1/2	5/8, 3/4, 1, 1 1/4	1.02
4	1 1/4	1 1/2	3/4, 1, 1 1/4	1.02

COPPER RIVETS



All sizes in 1 lb. boxes except those marked with an (*) which are in 5 lb. boxes.

Oval Head

Stock Sizes

1/8x3/8, 1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2, 1 1/4, 1 1/2, 1 3/4, 2.

Oval Head.....Prices on application

Countersunk Head

Stock Sizes

1/8x1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2, 1 3/4, 2; 1/2x3/4, 3/8, 1, *1 1/4, *1 1/2, *1 3/4, *2; 3/8x3/4, *1, *1 1/4, *1 1/2, *1 3/4.

Countersunk Head.....Prices on application

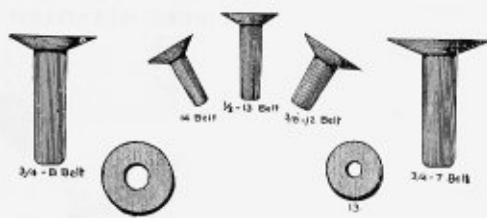
Flat Head

Stock Sizes

1/8x1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2, 1 3/4; 1/2x3/4, 1, 1 1/4, 1 1/2; 3/8x1, 1 1/4, 1 1/2, 2.

Flat Head.....Prices on application

COPPER BELT RIVETS AND BURRS



Rivets Only, in 1 Pound Boxes

Nos.	Length	1/2	3/8	1/4	3/16	1/8	1/16	1/32	1/64
No. 6	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 7	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 8	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 9	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 10	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 12	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 14	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4

Burrs Only, in 1 Pound Boxes

Nos.	Length	1/2	3/8	1/4	3/16	1/8	1/16	1/32	1/64
No. 4	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 5	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 6	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 7	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 8	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 9	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 10	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 12	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2

Rivets and Burrs, in 1 Pound Boxes

Nos.	Length	1/2	3/8	1/4	3/16	1/8	1/16	1/32	1/64
No. 4	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 5	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 6	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 7	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 8	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 9	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 10	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 12	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2

Prices on Application.

Rivets and Burrs Assortments, in 1/4 Pound Boxes

Nos.	Length	1/2	3/8	1/4	3/16	1/8	1/16	1/32	1/64
No. 4	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 5	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 6	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 7	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 8	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 9	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 10	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 12	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2

Rivets and Burrs Assortments, in 1/2 Pound Boxes

Nos.	Length	1/2	3/8	1/4	3/16	1/8	1/16	1/32	1/64
No. 4	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 5	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 6	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 7	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 8	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 9	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2
No. 10	Length	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4
No. 12	Length	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2	1 1/4	1 1/2

Prices on Application.

RIVETING MACHINES

REX



Black japanned and gilded, malleable iron frame with case hardened steel working parts.

Machine adjusts itself automatically to the different lengths of rivets.

Each No. 24—6 1/2 in. high, 5 1/2 in. long; wt. each 2 3/4 lbs. \$1.50 One in a box.

BELT COUPLINGS

MORAN'S

For Round Belts



Made of tough steel with properly proportioned hooks and eyes. Sizes given are outside diameters.

Size, in.	1/8	3/16	1/4	5/16	3/8	1/2
Wt. dozen pairs, oz.	1	1 1/2	2	3	6	10
Per dozen pairs	\$3.00	2.50	2.00	2.50	3.00	4.00

One dozen pairs in a box.

WIRE BELT LACING

MALIN'S COMPOSITION



Leaves a joint no thicker than any other part of the belt, eliminating extra strain at this point.

50 Feet on a Spool

Nos.	00	0	1	2	3
For belting, in.	1/2 to 1	1 to 2	2 to 6	6 to 20	20 to 40
Wt. per carton, lbs.	6 3/4	8 3/4	9 3/4	11 3/4	13
Per 100 feet	\$2.00	2.00	2.00	2.00	2.00

Twenty spools in a carton.

RAWHIDE BELT LACING



Assorted Lengths,
100 Feet in a Bundle

Width, in.	1/4	3/8	1/2	3/4	1
Wt. per bundle, lbs.	1	1 1/4	1 1/2	1 3/4	2
Per bundle	\$2.50	3.00	3.75	4.50	5.50

Width, in.	5/8	3/4	7/8	1
Wt. per bundle, lbs.	3	4	5	6
Per bundle	\$6.50	7.50	9.50	11.00

STEEL BELT LACING

ALLIGATOR



Alligator steel lacing is adapted for use on leather, rubber, Balata, cotton or canvas stitched belts of any width or thickness and will hold securely the size belt it is intended for.

Lacing is smooth on both sides of belt and can run in contact with an idler pulley or on serpentine drives. It can be used in all classes of service, light work or heavy duty on any kind of belting.

Cold Rolled Steel

Nos.	Thickness, belting, in.	Will join width, in.	Length section, in.	Wt. per box, lbs.	Per box
00	Up to 1/8	72	6	1 1/2	\$2.60
1A	1/8 to 3/16	42	6	1 1/2	1.70
15	3/16 to 1/4	64	8	1 1/2	2.60
20	1/4 to 5/16	60	12	1 1/2	2.60
25F	5/16 to 3/8	48	8	1 1/2	2.50
25G	3/8 to 1/2	96	12	2 3/4	5.00
27L	1/2 to 5/8	96	12	3 1/2	5.30
35M	5/8 to 3/4	32	8	1 3/4	2.30
35N	3/4 to 7/8	48	12	2 1/2	3.40
45U	7/8 to 1	48	12	3 1/2	4.50
55W	1 to 1 1/8	48	12	5	5.20
65X	1 1/8 to 1 1/2	48	12	6	6.00
75	1 1/2 to 1 3/4	48	12	10 1/2	8.80

Packed in boxes complete with gauge pin and hinge pins. Corrugated wire pins regularly supplied with Nos. 00 and 1A fasteners. Sectional steel rocker pins supplied regularly with Nos. 15 to 75 inclusive. Rawhide hinge pins supplied with Nos. 00 to 45 inclusive only upon request.

HANDY "S" PACKAGES

Each Handy package contains two 6 in. sets of lacing complete with hinge and handle gauge pins, or enough lacing to join 12 inches of belting.

Nos.	For belting 1/2 to 3/4 in. thick; wt. per carton 2 3/4 lbs.	For belting 3/4 to 1 in. thick; wt. per carton 4 1/2 lbs.	For belting 1 to 1 1/8 in. thick; wt. per carton 5 1/4 lbs.	For belting 1 1/8 to 1 1/2 in. thick; wt. per carton 8 lbs.
No. 15-S	\$5.50	7.00	7.50	9.50
No. 25-S				
No. 27-S				
No. 35-S				

EXTRA HINGE PINS

Twisted Rawhide Pins

For Lacing, Nos.	00	1	15	20-25	27	35	45
Length, in.	6	8	12	12	12	12	12
Wt. per doz., ozs.	1 1/2	1 1/2	1 1/2	2	2 1/2	3	3
Per dozen	\$0.40	.40	.60	.90	1.00	1.00	1.20

Sectional Steel Rocker Pins

For Lacing, Nos.	20-25	27	35	45	55-65	75
Length, in.	12	12	12	12	12	12
Wt. per doz., lbs.	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Per dozen	\$0.90	1.00	1.00	1.20	1.40	1.70

One dozen in a bundle.

STEEL BELT LACING BRISTOL

Patent steel lacing. Makes a smooth and elastic joint. Each box contains (assorted lengths) enough to lace 100 inches in width of belting.



No. 1 Style
for Leather
Belts

Assorted Widths

	Per box
No. 00—For split leather and extra light belts from $\frac{1}{8}$ to $\frac{1}{2}$ in. thick; wt. per box $\frac{1}{4}$ lb.	\$1.00
No. 0—For split leather and light belt, $\frac{1}{8}$ to $\frac{1}{4}$ in. thick; wt. per box $\frac{1}{2}$ lb.	1.00
No. 1—For single leather belts, $\frac{1}{8}$ to $\frac{1}{4}$ in. thick; wt. per box 1 lb.	1.50
No. 2—For extra heavy and wide single leather belts, $\frac{1}{4}$ to $\frac{1}{2}$ in. thick; wt. per box 2 lbs.	2.00
No. 3—For double leather belts, $\frac{1}{8}$ to $\frac{1}{4}$ in. thick; wt. per box $2\frac{3}{4}$ lbs.	2.50
No. 4—For heavy double leather belts, $\frac{1}{4}$ to $\frac{1}{2}$ in. thick; wt. per box $3\frac{1}{2}$ lbs.	3.00
No. 5—For extra heavy double leather belts; $\frac{1}{2}$ to $\frac{1}{4}$ in. thick; wt. per box $4\frac{1}{4}$ lbs.	3.50



No. 11
Style for
Woven
Belts

Assorted Widths

	Per box
No. 12—For 4-ply rubber and cotton belts, $\frac{1}{4}$ to $\frac{1}{2}$ in. thick; wt. per box $2\frac{1}{2}$ lbs.	\$2.00
No. 13—For 5-ply rubber and cotton belts, $\frac{1}{4}$ to $\frac{1}{2}$ in. thick; wt. per box 4 lbs.	2.50
No. 14—For 6-ply rubber and cotton belts, $\frac{3}{8}$ to $\frac{1}{2}$ in. thick; wt. per box 5 lbs.	3.00

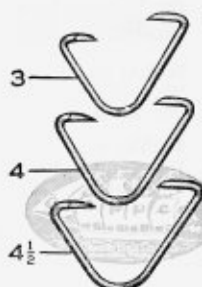


Staggered
Point Style
for
All Kinds of
Belts

Assorted Widths

	Per box
No. 110—For all belts $\frac{1}{8}$ to $\frac{1}{2}$ in. thick, split leather and light rubber and cotton belts; wt. per box $\frac{1}{2}$ lb.	\$1.00
No. 111—For all belts $\frac{1}{8}$ to $\frac{1}{4}$ in. thick, ordinary single leather, 3-ply rubber and cotton belts; wt. per box $1\frac{1}{2}$ lbs.	1.50
No. 112—For all belts $\frac{1}{4}$ to $\frac{1}{2}$ in. thick, extra heavy and wide single leather, 4-ply rubber and cotton belts; wt. per box $2\frac{1}{2}$ lbs.	2.00
No. 113—For all belts, $\frac{1}{8}$ to $\frac{1}{2}$ in. thick, double leather, 5-ply rubber and cotton belts; wt. per box $3\frac{1}{2}$ lbs.	2.50
No. 114—For all belts, $\frac{3}{8}$ to $\frac{1}{2}$ in. thick, heavy double leather, 6-ply rubber and cotton belts; wt. per box $4\frac{1}{4}$ lbs.	3.00
No. 115—For all belts $\frac{1}{8}$ to $\frac{1}{2}$ in. thick; extra heavy double leather belts and 7-ply rubber and cotton belts; wt. per box $5\frac{1}{4}$ lbs.	3.50

BELT HOOKS CLIPPER



For all makes of belting.

Standard Package Line

Cards hold 84 hooks each and are packed 12 cards (one size) in a box with a sufficient number of rawhide pins (except No. 1). Each box will lace 80 in. total width, both ends of belt.

The No. 1 hooks are carded in 6 inch lengths, and are packed 20 cards in a box; sufficient for lacing 34 two inch or 77 one inch belts complete.

	Per box
No. 1—For very thin belts; weight per box $\frac{1}{2}$ lb.	\$0.95
No. 2—For thin belts over small pulleys; wt. per box 1 lb. ....	.95
No. 3—For thin belts over medium size pulleys; wt. per box $1\frac{1}{4}$ lbs.	1.00
No. 4—For belts not over $\frac{1}{4}$ in. thick; wt. per box $1\frac{1}{2}$ lbs.	1.00
No. 5—For belts not over $\frac{1}{2}$ in. thick; wt. per box $1\frac{3}{4}$ lbs.	1.15
No. 6—For belts not over $\frac{3}{4}$ in. thick; wt. per box 2 lbs.	1.50

Twenty-five boxes in a carton.

BELT HOOK PINS CLIPPER



Twisted Rawhide, 12 in. Long

Can be cut to suit requirements.

Nos.	13	12	11	10
Diam., in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
For hooks, Nos. 1, 2, 3	4	$4\frac{1}{2}$	5	5
Wt. package, ozs.	2	$2\frac{1}{4}$	3	4
Per package	\$0.85	.85	.85	.95
Nos.	9	8	7	5
Diam., in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
For hooks, Nos.	6	6	Heavy Belts	
Wt. pack., ozs.	$4\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{4}$	8
Per package	\$1.05	1.15	1.45	2.00

Per package
Assorted—Nos. 13 to 8\$0.90

Special Waterproof, 12 in. Long

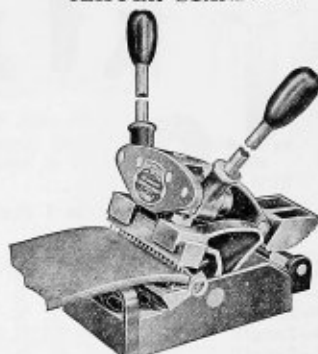
For use in damp and wet places.

Nos.	13F	12F	11F	10F
Diam., in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
For hooks, Nos. 1, 2, 3	4	$4\frac{1}{2}$	5	5
Wt. package, ozs.	2	$2\frac{1}{4}$	$3\frac{1}{4}$	4
Per package	\$0.70	.70	.70	.80
Nos.	9F	8F	7F	5F
Diam., in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
For hooks, Nos.	6	6	Heavy Belts	
Wt. pack., ozs.	5	6	7	$9\frac{1}{2}$
Per package	\$0.90	1.00	1.20	1.60

Per package
Assorted—Nos. 13F to 8F\$0.75

Twenty-four in a package.

BELT LACERS CLIPPER STANDARD

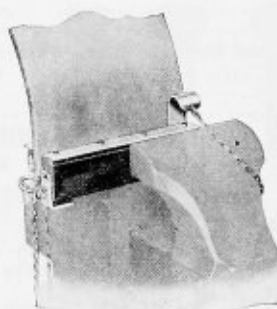


Cast Iron Body, Steel Faced

All working parts tempered and case hardened. Adapted to all types of belting and will accommodate any belt not over $\frac{3}{4}$ in. thick. Laces a 6-inch belt in three minutes. This lacer makes it unnecessary to remove the belt. It can be carried to the belt.

	Each
No. 3—6 in.; operated by two 9 in. lever handles, uses No. 2 to 6 hooks; wt. each 24 lbs.	\$25.00
One in a box.	

CLIPPER, VISE TYPE



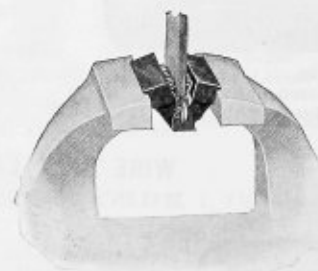
Cast Steel Faced

For use in any vise. Special attachment permits embedding hooks flush with surface of belt.

Laces belts 4 in. or 6 in. wide and $\frac{3}{4}$ in. thick in one operation.

	Each
No. 04—4 in.; wt. each $3\frac{1}{2}$ lbs.	\$3.00
No. 06—6 in.; wt. each $4\frac{1}{2}$ lbs.	3.50

One in a box.



Cast Steel Faced

For use in any ordinary vise for lacing belts up to 2 in. wide and $\frac{1}{2}$ in. thick in one operation.

	Each
No. 101—2 in.; uses No. 1 hooks only; wt. each 1 lb.	\$2.50
One in a box.	

BABBITT METAL **MAGNOLIA ANTI-FRICTION**



A graphite treated anti-friction metal. Runs cold and requires very little oil. For heavy pressure and high speed bearings.

Per pound
Magnolia—In unit bars, about
5½ lbs. each\$ Market
Fifty-six pounds in a box.

No. 4



A low grade of metal for low speed and when light pressure is on the bearings. Not used for high speed.

Per pound
No. 4—In 5 piece bars, about
7½ lbs. each\$ Market
One hundred pounds in a box.

BAR SOLDER



Commercial, Half and Half

Contains a large percentage of tin. Can be reduced with lead for plumbers' use when desired.

Per pound
No. 777—In bars about 2 lbs.
each\$ Market
One hundred pounds in a box.

TINKER'S SOLDER



Ideal for household use.
Free flowing and of excellent quality.

Per pound
Tinker's—In 6 in. bars about 2 oz.
each\$ Market
One gross in a box.

ALUMINUM SOLDER **LENK'S**



A guaranteed aluminum solder in bar form. Melts at 450° F., requires no acids or flux. Made of pure virgin metal.

Per card
No. 1—Consists of 12 bars on a display card; wt. per card 1 lb.\$2.40

Per pound
No. ½—In ½ lb. bars\$1.75
One hundred pounds in a case.

WIRE SOLDER **STANDARD**



Warranted Half and Half

Composition of 50% tin and 50% lead. For electrical purposes, household and automobile use.

Per pound
No. 111—11 gauge\$ Market

In 5, 10 and 25 pound spools.

Open stock.

KESTER ACID-FILLED

On Spools



Filled with a scientifically prepared acid flux which is released in the proper proportions as the solder melts.

Flows freely and uniformly. No secondary or reclaimed metal used in its construction.

.123 in. Diameter, About 30 Ft. in a Pound

Size spools, lbs. 1 5 20

Per pound\$ Market

Open stock.

KESTER ROSIN-FILLED

On Spools



Filled with a superior plastic rosin flux.

Will not deteriorate and leaves only a transparent residue. Prevents corrosion and electrical leakage.

.092 in. Diameter, About 50 Ft. in a Pound

Size spools, lbs. 1 5

Per pound\$ Market

Open stock.

NOKORODE CORE

In 1½ Ounce Package



Made of virgin tin and lead. Nokorode Soldering Paste is used for flux in the core. No. 10 gauge wire.

Per dozen
Nokorode Core—Wt. per doz. 1½ lbs.\$1.20
Two dozen in a carton.

SPELTER SOLDER

Fine Grain, Free Flowing

For brazing copper, brass, steel and cast iron. Can be relied upon for strength of seam.

Per pound
Spelter Solder—In 5 lb. bags\$0.60

SILVER BRAZING SOLDER

ATKINS



Used where a particularly strong joint is needed or where the joint is to be subjected to considerable heat.

Best adapted for brazing band saws.

Per ounce
Atkins—¼ in. wide, in 1 oz. coils\$1.25
Open stock.

SOLDERING PASTE **OAKWOOD**



Made of highest grade chemicals, and is most attractively and conveniently boxed. Unequaled for general use.

Is used and endorsed by thousands in various trades.

Size, oz.	2	4	8	16
No. in carton. 12	12	12	6	6
Wt. cart., lbs. 3	4½	8	8	12
Per dozen	\$3.00	4.80	8.40	12.00

NOKORODE



Will flux all metals except aluminum. Absolutely non-corrosive, safe as resin and rapid as acid.

Not affected by heat, does not spatter nor give off unhealthy odors or fumes. The solder will not turn dark after using and the work has the highest tensile strength known.

Size cans	2 oz.	1 lb.
No. in a carton.	12	6
Per dozen	\$1.80	15.00

SOLDERING SALTS **YAGER'S**



No fumes, no acid, no corrosion. Makes a perfect electrical and mechanical joint.

Will not streak or discolor work, saves time and solder.

Size cans, lbs.	½	1
Each	\$0.50	.80
Open stock.		

SOLDERALL

A combined metal solder and flux, for all metals except aluminum.

A small quantity applied to the joints will, when heated, flow and unite the parts the same as bar solder and more quickly.

Solderall—In 25c tubes; wt. per dozen 20 lbs. \$3.00

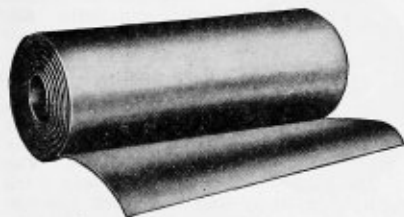
One dozen in a display box.

ROSIN

Used by tinsmiths, roofers and tinkers in soldering joints, as a flux to make the solder flow and by varnish makers as a gum, in cheap varnishes.

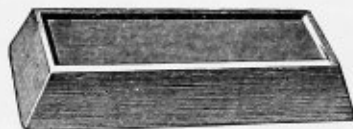
No. R—Lump Per pound \$0.15

About 500 pounds in a cask.

SHEET LEAD

In rolls, uniform in thickness and free from irregularities.

Thickness, in.	$\frac{1}{8}$	$\frac{1}{4}$
Size sheet, in.	12x36	12x36
Wt. per sq. ft., lbs.	4	8
Per pound	\$ Market	

PIG LEAD

Pure virgin lead, used for caulking joints on cast iron, water and soil pipes.

Pig Lead—5 lbs. each. Per pound \$ Market

Open stock.

WELDING COMPOUND

E-Z



Adheres to metal at a low heat and is equally good for lap, split butt or jump welding; makes a strong and smooth weld, welds steel as easily as iron.

Will weld tool steel, plow steel, spring steel, axles or steel tires.

Size box, lbs.	5	10	25	50
Per pound	\$0.18	.18	.17	.17

**LIQUID MENDER
METALLIC-X**

A liquid mender with a metallic base and will hold from 2 to 5 times stronger than similar products. Not a cement paste. Mends or patches anything or any combination of materials.

No. MX35—1 oz. tube, 35c size; wt. per dozen 2½ lbs. \$4.20

No. MX50—2 oz. tube, 50c size; wt. per dozen 3 lbs. 6.00

One dozen tubes in a display carton.

KRISTEL-X

Clear

For mending glass and other transparent articles.

No. KX35 —1 oz. tube, 35c size; wt. per dozen 2 lbs.	Per dozen \$4.20
One dozen tubes in a display carton.	

**LIQUID PORCELAIN CEMENT
SAUERREISEN INSALUTE**

A semi-liquid which hardens into a porcelain-like body without gloss.

Resists acids, oil and high temperatures.

Has many uses including electrical insulation, assembling, sealing, acid-proof construction, heat treating, repairing glass and porcelain, cementing metal to glass, etc.

Size Cans	¼ pt.	½ pt.	1 pt.
No. in carton	72	96	24
Wt. per carton, lbs.	36	96	48
Per can	\$0.25	.50	.70

LINOLEUM CEMENT

A water resistant linoleum cement for fastening linoleum and rubber tile to floors. May also be used as a cement for fastening rubber onto automobile running boards.

Size	1 qt.	1 gal.
No. in case	24	6
Wt. per case, lbs.	80	80
Per can	\$0.60	1.25

**HOUSEHOLD CEMENT
DUCO**

Can be used for mending china, glass, wood, leather, porcelain, metal or fabrics.

It is waterproof, transparent, dries quickly and is always ready for use.

Duco—In large 25c tubes; wt. per dozen 2½ lbs. \$3.00

One dozen in a carton.

LIQUID GLUE

LE PAGE'S

For mending crockery, wood, leather, glass, etc., by carpenters, mechanics and all wood workers, in repair shops, and for general household purposes. No cooking required. No glue pot needed.



Family Size, in Tubes

In patented self-sealing collapsible tube. Patented pin is used for a spreader.

Per dozen
No. 27—Weight per dozen
2 1/4 lbs.\$2.40

One dozen in a display carton,
one gross in a case.

Family Size

Per dozen
No. 25—Small glass
bottles, with pat-
ented spreader and
cap screw; wt. per
dozen 4 lbs....\$2.40

One dozen in a fancy
display box; one gross
in a case.



No. 30

Mechanic's Size in Cans with Patent

Outside Friction Top

Nos.	30	31	32
Cap. cans	1 gill	1/2 pt.	1 pt.
Dozen in case.....	3	2	1
Wt. per dozen, lbs..	5 1/2	10	18
Per dozen	\$3.60	6.00	10.20

Nos.	33	35
Cap. cans	1 qt.	1 gal.
Dozen in case.....	1	1/2
Wt. per dozen, lbs....	34	144
Per dozen	\$18.00	54.00

FISH GLUE

XXF GRADE



A good grade of
liquid glue for gen-
eral use, where
highest joint
strength is not es-
sential.

No heating re-
quired, ready for
use.

Size cans,
gal. 1/4
Per dozen...\$12.00

Size cans,
gal. 1
Per dozen...\$36.00

Open stock.

WATERPROOF GLUE

CASCO



Grade A

An efficient and eco-
nomical glue for build-
ers, cabinetmakers, car-
penters, boat builders,
contractors, decorators,
painters and household-
ers.

An all glue dry pow-
der containing no pre-
servatives. It is mixed
with cold water making

a quick-setting waterproof glue. Brown in
color.

One pound of Casco makes 1 1/2 quarts
of liquid glue.

Size cans, oz.....	1 1/2	4	8
Cans in case.....	12	12	12
Wt. case, lbs.	2	4 1/2	8 1/4
Per dozen	\$1.20	3.00	4.80

Size cans, lbs.....	1	5	25
Cans in case.....	12	6	Drum
Wt. case, lbs.	16	37 1/4	28
Per pound	\$0.65	.55	.45

No. 2 White

Similar to grade A, but non-staining
and moisture resisting. Especially suited
for fine furniture work, veneering, inlay-
ing, etc.

Size cans, lbs.....	1/4	1
Cans in case.....	12	12
Wt. case, lbs.	8 1/4	16
Per pound	\$0.80	.65

DRY GLUE

RUSSIA



Gloucester Sheet

A most satisfactory glue for repair
work of all kinds. Can be used with equal
success on soft and hard woods. An ex-
ceptionally strong and economical glue
for cabinet making, pattern making and
general wood jointing.

Per pound

No. 1122—3x5 in. sheets.....\$0.30

Flake

An all hide glue clear in color with a
sweet odor. Known as a most ideal, gen-
eral all-around glue.

Per pound

No. 1282

Ground

A bone and sinew. It is practically free
from foam and can be used in machine
operation as well as various other types
of work.

Per pound

No. 1226

In bulk.

GLUE POTS

CAST IRON



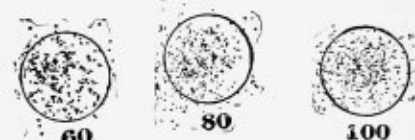
In two parts. In-
ner vessel is white
enamel lined. Out-
side pot is painted
black on the out-
side. Strong wire
bails.

Nos.	000	00	0
Cap. pts.	1 1/2	3/4	1
Wt. dozen, lbs.....	40 1/2	45	60
Per dozen	\$14.50	15.00	15.50
Nos.	1	2	3
Cap. pts.	1 1/2	2	2 1/2
Wt. dozen, lbs.....	72	73 1/2	93
Per dozen	\$18.00	18.75	22.00
Nos.	4	5	
Cap. pts.	3	4	
Wt. dozen, lbs.....	109 1/2	123	
Per dozen	\$28.60	30.80	

Open stock.

EMERY

TURKISH



Ideal for all grinding and polishing pur-
poses. Hard and tough and has excellent
fracture. Polishes while it is cutting, pro-
duces a smooth scratchless finish.

Coarse Sizes

Nos.	30	40	50
Per pound	\$0.15	.15	.15

In 100 pound kegs.

Fine Sizes

Nos.	60	70	80	90	100	120	140	160	180
Per pound	\$0.15								

In 100 pound kegs.

Flour Sizes

Nos.	F	FF
Per pound	\$0.15	.15

In 350 pound kegs.

STEEL WOOL

ELEPHANT



Made of long strands of steel, very re-
siliant with long life and endurance. Used
for rubbing and polishing in place of sand
paper.

In 1 Lb. Cardboard Tubes

No. 000—Extra fine, for rubbing down final coats.....	\$1.25
No. 00—Equal to No. 000 sand paper..	1.00
No. 0—Equal to No. 00 sand paper..	.70
No. 1—Equal to No. 0 sand paper..	.60
No. 2—Equal to No. 1 1/2 sand paper..	.50
No. 3—Equal to Nos. 1 and 1 1/2 sand paper .....	.40

25 packages in a case.

FLINT PAPER BEHR-MANNING MOHAWK



In Wire-Bound Bundles 8 3/4 x 10 1/2 in. Sheets

Works most economically on general hand sanding of wood and painting materials because of the strong pliable backing and first grade American flint grain.

Especially useful for carpenters and painters.

Nos.	3/0	2/0	0
No. reams in bdle.	5	5	5
Approx. wt. ream, lbs.	14	16	17
Per ream	\$6.75	6.75	6.75

Nos.	1/2	1	1 1/2	2	2 1/2	3
No. reams in bdle.	4	3 1/2	3	2	2	1 1/2
Approx. wt. ream, lbs.	21	26	30	40	48	58
Per ream	\$7.20	8.10	9.15	10.35	11.70	13.20

480 sheets in a ream.



In Neatpak Boxes 8 3/4 x 10 1/2 in. Sheets

Same grade flint paper as the above but is packed in boxes for the convenience of the dealer and consumer.

Nos.	3/0	2/0	0
Sheets in box	100	100	100
Apx. wt. box, lbs.	3 1/2	3 1/2	4 1/2
Per box	\$1.40	1.40	1.40

Nos.	1/2	1	1 1/2	2	2 1/2	3
Sheets in box	100	75	50	50	50	25
Approx. wt. per box, lbs.	4 1/2	4 1/2	4	5	5 1/2	3 1/2
Per box	\$1.50	1.25	.95	1.10	1.20	.70

Ten boxes in a carton.

In Handy Packages 4 3/4 x 5 1/4 in. Sheets

Each package contains 20 sheets of flint paper of assorted grits.

Per dozen

Handy Packages—One dozen in a display carton; wt. per carton 2 1/2 lbs. \$0.80

Six dozen in a carton.



GARNET PAPER

9x11 in. Sheets

Coated with first quality Adirondack garnet on a strong pliable backing. Ideally suited to the hand sanding of fine wood furniture and cabinet work.

Nos.	3/0	2/0	0
App. wt. ream, lbs.	23	28	37
Per ream	\$22.50	22.50	25.00

Nos.	1/2	1	1 1/2
App. wt. ream, lbs.	45	55	68
Per ream	\$29.00	33.00	37.50

480 sheets in a ream.

In Rolls 50 Yards Long Per Roll

Width, in.	3/0-2/0	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2
4	\$ 4.00	4.40	5.00	5.65	6.40	7.10	7.85	8.60	9.40
6	5.90	6.45	7.40	8.40	9.45	10.55	11.65	12.80	14.00
8	7.80	8.55	9.85	11.15	12.55	14.05	15.50	16.95	18.40
10	9.70	10.65	12.25	13.85	15.65	17.50	19.30	21.15	23.20
12	11.60	12.70	14.65	16.60	18.70	20.95	23.10	25.35	27.80
14	13.40	14.65	16.85	19.20	21.55	24.05	26.55	29.10	31.75
16	15.20	16.65	19.25	21.85	24.60	27.35	30.10	32.95	35.90
18	17.00	18.65	21.85	24.80	28.00	31.30	34.60	37.90	41.65
20	18.80	20.65	24.30	27.55	31.10	34.80	38.40	42.10	46.25
24	20.50	22.70	26.30	30.00	34.00	38.20	42.30	46.50	51.20
30	25.00	28.35	32.85	37.50	42.50	47.75	52.85	58.10	63.50
36	30.75	34.05	39.45	45.00	51.00	57.30	63.45	69.75	76.20
42	35.85	39.70	46.00	52.50	59.50	66.85	74.00	81.40	88.90
48	41.00	45.40	52.60	60.00	68.00	76.40	84.00	93.00	101.00

GARNET CLOTH BEHR-MANNING

In Rolls 50 Yards Long Per Roll



Width, in.	Grit	Numbers	1/2
4	\$ 9.15	9.70	10.50
6	13.65	14.45	15.65
8	18.15	19.20	20.80
14	31.55	33.40	36.30
28	58.00	61.60	66.90

EMERY CLOTH

In Wire-Bound Bundles, 9x11 in. Sheets



Coated with a mixture of corundum and several other minerals. On blue jeans cloth backing. The standard machinists' smoothing and polishing cloth.

Nos.	3/0	2/0	0	1/2	1
No. reams in bdle.	2 1/2	2 1/2	2 1/2	2	2
Approx. wt. ream, lbs.	30	31	35	42	46
Per ream	\$30.00	30.00	30.00	31.20	32.75

Nos.	1 1/2	2	2 1/2	3
No. reams in bdle.	2	2	1 1/2	1
Approx. wt. ream, lbs.	54	63	75	90
Per ream	\$34.30	36.50	39.40	42.50

480 sheets in a ream.

CROCUS CLOTH

In Wire-Bound Bundles, 9x11 in. Sheets

Coated with red oxide of iron, on blue jeans cloth backing. Used for polishing metals.

Crocus Cloth—2 1/2 reams in a bdle.; wt. per ream 30 lbs. \$30.00

480 sheets in a ream.

ALOXITE CLOTH CARBORUNDUM

9x11 in. Sheets

An ideal abrasive material for metal work, and when coated on cloth, it is superior to emery for general shop use. Exceedingly hard and tough; it not only does a better and faster job, but because of the toughness of grain, shows much longer life.

Nos.	180	150	120
App. wt. ream, lbs.	28	31	35
Per ream	\$54.70	54.70	54.70

Nos.	100	80	60
App. wt. ream, lbs.	38	45	55
Per ream	\$54.70	58.10	63.10

One ream (480 sheets) in a package.



DURUND PAPER

BEHR-MANNING

LIGHTNING

In Rolls

50 Yards in a Roll

Especially made for floor sanding machines. Electrically charged so that every grain is pointed end up and evenly spaced.

Per Roll

Width, in.	150-100	80	60	50	40	36	30	24	20
4	\$ 5.00	5.90	6.45	7.40	8.40	9.45	10.55	11.65	12.80
6	5.90	6.45	7.40	8.40	9.45	10.55	11.65	12.80	14.00
8	7.80	8.55	9.85	11.15	12.55	14.05	15.50	16.95	18.40
10	9.70	10.65	12.25	13.85	15.65	17.50	19.30	21.15	23.20
12	11.60	12.70	14.65	16.60	18.70	20.95	23.10	25.35	27.80
14	13.40	14.65	16.85	19.20	21.55	24.05	26.55	29.10	31.75
16	15.20	16.65	19.25	21.85	24.60	27.35	30.10	32.95	35.90
18	17.00	18.65	21.85	24.80	28.00	31.30	34.60	37.90	41.65
20	18.80	20.65	24.30	27.55	31.10	34.80	38.40	42.10	46.25
24	20.50	22.70	26.30	30.00	34.00	38.20	42.30	46.50	51.20
30	25.00	28.35	32.85	37.50	42.50	47.75	52.85	58.10	63.50
36	30.75	34.05	39.45	45.00	51.00	57.30	63.45	69.75	76.20
42	35.85	39.70	46.00	52.50	59.50	66.85	74.00	81.40	88.90
48	41.00	45.40	52.60	60.00	68.00	76.40	84.00	93.00	101.00

Thrill Rolls

One roll contains enough for 10 drum covers.

Price Per Roll

Width, in.	100	80	60	50	40	36	30	24	16
8	\$1.20	1.30	1.50	1.70	1.90	2.15	2.35	2.60	3.10
12	2.00	2.20	2.55	2.90	3.25	3.65	4.00	4.40	5.20

METALITE CLOTH

BEHR-MANNING
LIGHTNING



9x11 in. Sheets

Every grain charged by an electrical field of 46,000 volts, stands pointed end up and evenly spaced providing perfect chip clearance.

The ideal metal sanding cloth, combining efficiency, cutting speed and long life.

Nos.	320	240	180	150	120	100
Approx. wt. ream, lbs.	25	30	32	33	35	40
Per ream	\$54.70	54.70	54.70	54.70	54.70	54.70
Nos.	80	60	50	40	36	
Approx. wt. ream, lbs.	45	56	68	80	95	
Per ream	\$58.10	63.10	67.00	72.70	78.40	

One ream (480 sheets) in a package.

In Handy Rolls

50 Yards in a Roll

Same as Metalite Cloth in sheets but in rolls, cut with smooth, sharp edges of proper widths and may be torn to any required length.

Price per Roll
Grit Numbers

Width, in.	320 to 100	80	60	50	40	36	30	24
1	\$2.90	3.00	3.25	3.40	3.60	3.85	4.05	4.30
1½	4.05	4.20	4.50	4.80	5.10	5.45	5.75	6.10
2	5.15	5.40	5.80	6.15	6.55	7.00	7.45	7.95

In Rolls—50 Yards in a Roll

X Weight

The X weight backing is strong enough to withstand the severe strain which is thrown on the belt in metal cutting and polishing operations.

Price per Roll
Grit Numbers

Width, in.	320 to 100	80	60	50	40	36	30	24
2½	\$ 5.80	6.15	6.65	7.10	7.60	8.15	8.75	9.30
3	6.90	7.30	7.95	8.45	9.05	9.75	10.45	11.15
4	9.15	9.70	10.50	11.25	12.00	12.95	13.85	14.80
6	13.65	14.45	15.65	16.75	17.95	19.30	20.65	22.05
9	20.35	21.55	23.40	25.00	26.80	28.85	30.90	33.00
12	27.10	28.70	31.10	33.30	35.65	38.45	41.15	43.95
14	31.55	33.40	36.30	38.80	41.60	44.80	47.95	51.25
18	40.55	42.90	46.60	49.85	53.40	57.55	61.60	65.80
24	53.70	56.85	61.05	66.20	71.00	76.30	82.75	87.80
28	58.00	61.60	66.90	71.70	77.00	83.00	90.00	95.20

METALITE CLOTH BANDS AND SLEEVES



For various flexible shaft machines. Furnished already joined and ready for quick adjustment on the holding device.

Price Per 100

Size, in.	320-240	180-150	120-100	80	60	50	40	36	30	24	16
4x28	\$32.63	33.56	34.82	36.05	37.25	38.79	40.28	41.79	44.95		
4x27	32.11	33.00	34.21	35.40	36.56	38.05	39.48	40.94	43.99		
5x26½	19.70	20.32	21.34	22.13	23.07	24.15	25.26	26.34	28.61		
3x24	18.50	19.05	19.97	20.66	21.05	22.46	23.45	24.41	26.42		
3x19½	16.91	17.37	18.13	18.71	19.41	20.21	21.03	21.83	23.51		
3x19¼	16.91	17.37	18.13	18.71	19.41	20.21	21.03	21.83	23.51		
3x19	16.51	16.95	17.67	18.22	18.89	19.65	20.43	21.19	22.78		
3x18½	16.51	16.95	17.67	18.22	18.89	19.65	20.43	21.19	22.78		
3x11½	13.73	14.00	14.46	14.81	15.23	15.71	16.20	16.68	17.69		
3x11¼	13.73	14.00	14.46	14.81	15.23	15.71	16.20	16.68	17.69		
3x9½	9.38	9.61	9.99	10.28	10.63	11.03	11.44	11.84	12.68		
3x9¼	9.38	9.61	9.99	10.28	10.63	11.03	11.44	11.84	12.68		
3x9	9.38	9.61	9.99	10.28	10.63	11.03	11.44	11.84	12.68		
2x15½	13.29	13.53	13.89	14.21	14.58	15.00	15.41	15.88	16.76		

METALITE CLOTH BELTS

Price per Inch of Belt Length for 100 Belts

Grit Numbers

Belt width, in.	320-240	180-150	120-100	80	60	50	40	36	30	24	Gross chg. for cutting & joining
2½	\$0.335	.355	.384	.410	.439	.471	.505	.537	.575		\$1.15
3	.398	.421	.459	.488	.523	.563	.604	.644	.685		1.30
4	.528	.561	.606	.650	.693	.748	.801	.855	.915		1.785
6	.788	.835	.904	.968	1.037	1.115	1.193	1.274	1.360		2.675
9	1.176	1.245	1.352	1.445	1.549	1.667	1.786	1.907	2.040		40.15
12	1.566	1.658	1.797	1.924	2.061	2.222	2.378	2.540	2.710		53.50
14	1.823	1.931	2.098	2.242	2.404	2.589	2.771	2.962	3.160		62.45
18	2.343	2.479	2.693	2.881	3.086	3.326	3.590	3.803	4.030		80.30
24	2.878	3.051	3.317	3.554	3.814	4.115	4.410	4.716	5.030		107.00

* For belts not over 3 in. wide and not over 37 in. long, the gross joining charge is \$8.95 per 100 belts.

Note—If belt can be cut from a 9x11 in. sheet, the gross joining charge is \$1.80 per inches of width, per 100 belts with a minimum charge of \$5.40.

METALITE CLOTH GRINDING DISCS

BEHR-MANNING

"R" Weight

Standard for machine grinding of metal parts. Furnished in the size shown with any size center hole, or blank.



Diam., in.	Price Each							
	Grit Numbers							
	120	80	60	40	30	20	16	12
6	\$0.12	\$0.13	\$0.14	\$0.15	\$0.17	\$0.19	\$0.21	\$0.24
8	.19	.20	.22	.24	.26	.31	.36	.41
9	.23	.24	.27	.30	.34	.38	.44	.51
10	.28	.30	.33	.36	.41	.46	.54	.62
12	.38	.41	.44	.50	.57	.64	.76	.87
15	.56	.61	.67	.75	.87	.98	1.16	1.34
18	.79	.86	.94	1.06	1.23	1.39	1.65	1.91
20	.98	1.06	1.16	1.31	1.52	1.72	2.04	2.36
22	1.28	1.39	1.53	1.73	1.99	2.26	2.68	3.10
24	1.39	1.51	1.66	1.88	2.17	2.46	2.91	3.38
26	1.61	1.75	1.93	2.18	2.53	2.87	3.40	3.94
30	2.12	2.31	2.54	2.88	3.33	3.79	4.50	5.22
40	3.75	4.09	4.50	5.10	5.91	6.72	7.98	9.27
53	6.66	7.25	7.98	9.03	10.45	11.87	13.88	16.32

LEAD PENCILS

DIXON



Ticonderoga

Rounded hexagon; yellow finish; gilt tip; inserted rubber. Per gross
No. 1386-1—No. 1—Very soft lead \$7.20
No. 1386-2—No. 2—Soft lead 7.20
No. 1386-2-5/10—No. 2-5/10—Firm lead 7.20
One dozen in a box, one gross in a carton.



Oriole

Rounded hexagon; yellow finish; gilt tip; inserted eraser. Per gross
No. 287-2—No. 2—Soft lead \$4.00
One-half gross in a box.

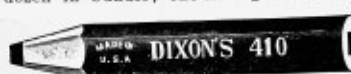
CARPENTERS' PENCILS

DIXON



Red and Black

Beveled shape; red and black finish; black edges. Per gross
No. 997S—7 in. long, soft lead \$ 9.60
No. 997H—7 in. long, hard lead 9.60
No. 998S—9 in. long, soft lead 13.40
No. 998H—9 in. long, hard lead 13.40
Weight approximately 5 pounds per gross.
One dozen in bundle; one-half gross in a carton.



Oval Shape, Polished Cedar Finish

Per gross
No. 410—Soft lead, 7 in. long; wt. per gross 3 lbs. \$5.00
One dozen in a paper, one-half gross in a box.

LUMBER CRAYONS

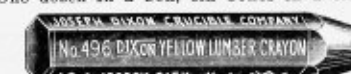
DIXON

For marking steel and iron, concrete and stone, and lumber in all stages of preparation—from the raw logs up. Their marks are sun and rain-proof.



Hexagon Shape, Black (Graphite)

Per dozen
No. 361—Black, medium, japanned finish \$0.70
No. 365—Black, very soft, paper covered70
Weight per gross 10 pounds.
One dozen in a box, six boxes in a carton.



Hexagon Shape, Colored, Paper Covered

Per dozen
No. 496—Yellow \$1.20
No. 520—Red 1.20
No. 521—Blue 1.20
No. 522—Green 1.20
No. 523—White 1.20
Weight per gross 12 pounds.
One dozen in a box, six boxes in a carton.

METAL WORKERS' CRAYONS SUPERBA



Per gross

Flat—5x1½x⅛ in.; wt. gross 7½ lbs. \$3.00

Square—5x¼ in.; wt. gross 5 lbs. 3.00

Round—5x¼ in.; wt. gross 4 lbs. 6.00

144 sticks in a box, 24 gross in a case.

RAILROAD CRAYONS U. V. A. BRAND



Made for a variety of uses, ranging from marking box cars to chalking work in machine shop operations.

4x1 Inch Sticks

Per gross

No. 70—White \$2.40

No. 90—Red 2.80

No. 110—Blue 2.80

Weight per case 70 pounds.

One gross in a box, 5 gross in a case.

SCHOOL CRAYONS ATLANTIC



3½ Inch Sticks

Free from grit, will not scratch the blackboard. Intensely white, long and tapering with rounded ends.

Per gross

No. 307—White; wt. per gross 2½ lbs. \$0.60

One gross in a box.

CARPENTERS' CHALK U. V. A. BRAND



Hemispherical Cakes

For marking chalklines, patterns, etc.

Nos. 130 131 132

Color White Red Blue

Wt. gross, lbs. 4¾ 4¼ 4¼

Per gross \$2.10 2.60 2.60

One-half gross in a carton.

CHALK LINE REELS

Polished Hardwood



Per dozen

No. 12—3 in. long, 2

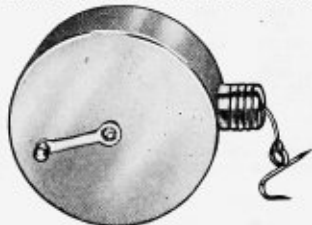
in. diam.; wt. per

dozen 1 lb. \$2.45

Three dozen in a box.

CHALK LINES

EASTMAN'S SELF-CHALKING



Fifty feet of chalk line in a reel. Line is chalked as it is withdrawn. Supply of chalk is included with each reel.

Steel cadmium finish.

Per dozen

Eastman's—3 in. diameter; wt. per

dozen 12 lbs. \$15.00

One in a box.



No. 4 Twisted White Cotton

Diameter ⅜ inch, 18 threads. In balls.

Nos. 4A 4B

Length, ft. 50 100

Wt. doz., lbs. 1 2

Per dozen .. \$1.00 2.00

One dozen in a box.

No. 6 Twisted White Cotton

Diameter ⅜ inch, 24 threads.

In balls.

Per pound

No. 6—½ lb. balls \$0.75

Open stock.

MASONS' LINES

No. 8 Twisted White Cotton

Diameter ⅜ inch, 30 threads.

In balls.

Nos. 8B 8C 8D

Lgth., ft. 100 150 200

Wt. doz.,

lbs. 1½ 2¼ 3

Per doz. \$5.00 7.50 10.00

One dozen in a box.

BRAIDED LINE



No. 3½



No. 4



No. 4½

In 48 Foot Hanks, Connected

Hard, solid braided cotton.

Size 3 3½ 4 4½

Per dozen hanks .. \$6.30 6.30 6.80 7.90

One dozen hanks in a box.

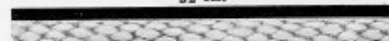
AWNING LINES PHOENIX



¼ in.



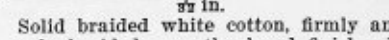
⅜ in.



½ in.



¾ in.



Solid braided white cotton, firmly and evenly braided, smooth glazed finish. Is pliable and will not kink, especially made for use with small pulleys.

Diam., in. ¼ ⅜ ½ ¾

Per yard \$0.03 .04 .05 .06

About 500 yards on a paper tube.

TWINES NASHOBA



In ½ Pound Balls

A smooth, tough, flexible glazed twine made of No. 2 yarn.

Nos. 18 24 36

Per pound \$0.60 .60 .60

Thirty pounds in a carton.

REGULAR COTTON

In ½ Pound Balls



Per pound

White \$0.60

Five pounds to a bag.



HEMP TWINE

In ½ Pound Balls

Per pound

No. 18 \$0.50

Three pounds in a package.

SPRING TWINE

Hemp

Per pound

No. 6 —In 1 lb. balls \$0.35

No. 4½—In ½ lb. balls40



WOOL TWINE

In 1 Pound Balls

Per pound

No. 000 \$0.32

SASH CORD

Note—For sash cord refer to builders' hardware section of this catalog.

SHOVELS

D HANDLE, SQUARE POINT



"Genuine O. Ames"; Welded Plain Back

Special alloy steel heat treated blade 14 gauge, black finish; 27 in. XXX grade selected Northern ash handle, sanded and waxed, with cadmium plated armor D.

Nos.	100-2	100-3
Size	2	3
Blade, in.	9 $\frac{3}{4}$ x11 $\frac{1}{2}$	10 $\frac{1}{4}$ x12 $\frac{1}{2}$
Wt. dozen, lbs.	60	62
Per dozen	\$26.00	26.80

One-half dozen in a bundle.



"Diamond"; Welded Plain Back

Special analysis high carbon steel blade, 15 gauge, black finish; 27 in. No. 1 grade Northern ash handle, sanded and waxed, with lacquered armor D.

Nos.	100-2	100-3	100-4
Size	2	3	4
Blade, in.	9 $\frac{3}{4}$ x11 $\frac{1}{2}$	10 $\frac{1}{4}$ x12 $\frac{1}{2}$	10 $\frac{3}{4}$ x12 $\frac{1}{2}$
Wt. dozen, lbs.	58	60	62
Per dozen	\$17.50	18.30	19.10

One-half dozen in a bundle.



"Fox"; One-Piece, Solid Shank, Socket Pattern

"Flexsteel" heat treated blade, 15 gauge, polished or black finish; 27 in. X grade Northern ash handle, sanded and waxed, with SturdE-D.

Nos.	FE-11	FE-13
Size	2	3
Blade, in.	9 $\frac{3}{4}$ x12	10x12 $\frac{1}{2}$
Wt. dozen, lbs.	64	67
Polished Finish ...Doz.	\$22.80	23.60
Black Finish .....Doz.	20.00	20.80

One-half dozen in a bundle.



"Badger"; One-Piece, Solid Shank, Socket Pattern

High carbon steel blade, 15 gauge, black finish; 26 $\frac{1}{2}$ in. No. 1 grade ash handle, sanded and waxed, with SturdE-D.

No. E11C—(Size 2) 9 $\frac{3}{4}$ x12 in. blade; wt. per dozen 50 lbs.	\$17.50
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One-half dozen in a bundle.

SHOVELS

D HANDLE, SQUARE POINT



"Squirrel", One-Piece, Hollow Back

Carbon steel blade, 16 gauge black finish; 27 in. serviceable ash handle, smoothly finished with indestructible steel D.

No. S1 $\frac{1}{2}$ —(Size 1 $\frac{1}{2}$) 9 $\frac{3}{4}$ x11 $\frac{1}{4}$ in. blade; wt. per dozen 50 lbs.	\$10.00
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One-half dozen in a bundle.



"Genuine" O. Ames "Moulders" Plain Welded Back

Special alloy steel heat treated blade, 14 gauge, polished finish; 27 in. XXX grade selected white ash handle, sanded and waxed, with wood D.

No. 206—(Size 2) 10x12 in. blade; wt. per dozen 60 lbs.	\$28.80
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One-half dozen in a bundle.

D HANDLE, ROUND POINT



"Genuine O. Ames"; Welded Plain Back

Special alloy steel heat treated blade, 14 gauge, black finish; 27 in. XXX grade selected white ash handle, sanded and waxed with cadmium plated Ames Armor-D.

No. 102—(Size 2) 9 $\frac{3}{4}$ x12 $\frac{1}{2}$ in. blade; wt. per dozen 60 lbs.	\$26.00
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One-half dozen in a bundle.



"Diamond"; Welded Plain Back

Special analysis high carbon steel blade, 15 gauge, black finish; 27 in. No. 1 grade selected white ash handle, sanded and waxed, with lacquered Armor-D.

Nos.	102-2	102-3	102-4
Size	2	3	4
Blade, in.	9 $\frac{3}{4}$ x12 $\frac{1}{2}$	9 $\frac{3}{4}$ x12 $\frac{1}{2}$	10x13 $\frac{1}{2}$
Wt. dozen, lbs.	58	58	60
Per dozen	\$17.50	18.30	19.10

One-half dozen in a bundle.

SHOVELS

D HANDLE, ROUND POINT



"Fox"; One-Piece, Solid Shank, Socket Pattern

"Flexsteel" heat treated blade, 15 gauge, polished or black finish; 27 in. X grade Northern ash handle, sanded and waxed, with SturdE-D.

Nos.	FE23	FE25
Size	2	3
Blade, in.	8 $\frac{3}{4}$ x12 $\frac{1}{2}$	9x13
Wt. dozen, lbs.	61	64
Polished Finish ...Doz.	\$22.80	23.60
Black Finish .....Doz.	20.00	20.80

One-half dozen in a bundle.



"Badger", One-Piece, Solid Shank, Socket Pattern

High carbon steel blade, 15 gauge, black finish, 26 $\frac{1}{2}$ in. No. 1 grade ash handle, sanded and waxed with SturdE-D.

No. E23C—(Size 2) 8 $\frac{3}{4}$ x11 $\frac{1}{2}$ in.; wt. per dozen 50 lbs.	\$17.50
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One-half dozen in a bundle.



"Squirrel"; One-Piece, Hollow Back

Carbon steel blade, 16 gauge, black finish; 27 in. serviceable ash handle, smoothly finished with indestructible steel D.

No. S21 $\frac{1}{2}$ —(Size 1 $\frac{1}{2}$) 8 $\frac{3}{4}$ x11 $\frac{1}{2}$ in.; wt. per dozen 50 lbs.	\$10.00
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One-half dozen in a bundle.

LONG HANDLE, SQUARE POINT



"Diamond"; Welded Plain Back

Special analysis high carbon steel blade, 15 gauge, black finish; 51 in. No. 1 grade selected white ash handle, sanded and waxed.

Nos.	101-2	101-3	101-4
Size	2	3	4
Blade, in.	9 $\frac{3}{4}$ x11 $\frac{1}{2}$	10 $\frac{1}{4}$ x12 $\frac{1}{2}$	10 $\frac{3}{4}$ x12 $\frac{1}{2}$
Wt. dozen, lbs.	58	60	62
Per dozen	\$17.50	18.30	19.10

One-half dozen in a bundle.

SHOVELS

LONG HANDLE, SQUARE POINT



"Fox"; One-Piece Solid Shank, Socket Pattern

"Flexsteel" heat treated blade, 15 gauge polished or black finish; 50 in. X grade Northern ash handle, sanded and waxed.

Nos.	FL-17	FL-19
Size	2	3
Blade, in.	9½ x 12	10 x 12½
Wt. dozen, lbs.	64	67
Pol. Finish, per doz.	\$22.80	23.60
Black Finish, per doz.	20.00	20.80

One-half dozen in a bundle.



"Badger"; One-Piece, Solid Shank, Socket Pattern

High carbon steel blade, 15 gauge, black finish; 47 in. No. 1 grade ash handle, sanded and waxed.

No. L-17-C—(Size 2) 9½ x 11½ in.	Per dozen
blade; wt. dozen 50 lbs.	\$17.50

One-half dozen in a bundle.

LONG HANDLE, ROUND POINT



"Genuine O. Ames"; Welded Plain Back

Special alloy steel heat treated blade, 14 gauge, black finish; 51 in. XXX grade selected white ash handle, sanded and waxed.

No. 103—(Size 2) 9½ x 11½ in.	Per dozen
blade; wt. dozen 60 lbs.	\$26.00

One-half dozen in a bundle.



"Diamond"; Welded Plain Back

Special analysis high carbon steel blade, 15 gauge, black finish; 51 in. No. 1 grade selected white ash handle, sanded and waxed.

Nos.	103-2	103-3
Size	2	3
Blade, in.	9½ x 11½	9½ x 12½
Wt. dozen, lbs.	58	60
Per dozen	\$17.50	18.30

One-half dozen in a bundle.

SHOVELS

LONG HANDLE, ROUND POINT



"Fox"; One-Piece, Solid Shank, Socket Pattern

"Flexsteel" heat treated blade, 15 gauge, polished or black finish; 50 in. X grade Northern ash handle, sanded and waxed.

Nos.	FL-29	FL-31
Size	2	3
Blade, in.	9½ x 12	9½ x 12½
Wt. dozen, lbs.	61	64
Pol. Finish, per doz.	\$22.80	23.60
Black Finish, per doz.	20.00	20.80



"Badger"; One-Piece, Solid Shank, Socket Pattern

High carbon steel blade, 15 gauge, black finish; 47 in. No. 1 grade ash handle, sanded and waxed.

No. L-29-C—(Size 2) 8½ x 11½ in.	Per dozen
blade; wt. per dozen 50 lbs.	\$17.50



"Squirrel"; One-Piece, Hollow Back
Carbon steel blade, 16 gauge, black finish; 51 in. serviceable ash handle, smoothly finished.

No. S31½—(Size 1½) 8½ x 11½ in.	Per dozen
blade; wt. per dozen 50 lbs.	\$10.00



"Knoxall" Featherweight Midget, Welded Plain Back

Special analysis high carbon steel blade, 16 gauge, polished finish; 38 in. No. 1 grade Northern ash handle, sanded and waxed. Length over all 49 inches.

No. 115—(Size 0) 8 x 10½ in. blade;	Per dozen
wt. per dozen 40 lbs.	\$16.00

SPADES

D HANDLE, GARDEN



"Genuine O. Ames"; Welded Plain Back

Special alloy steel heat treated blade, 13 gauge, black finish; 27 in. XXX grade selected white ash handle, sanded and waxed with cadmium plated Armor D.

No. 124—(Size 2) 7 x 12 in. blade;	Per dozen
wt. per dozen 62 lbs.	\$26.00

All above, one-half dozen in a bundle.

SPADES

D HANDLE, GARDEN



"Diamond"; Welded Plain Back

Special analysis high carbon steel blade, 13 gauge, black finish; 27 in. No. 1 grade selected white ash handle, sanded and waxed with lacquered Armor D.

No. 124—(Size 2) 7 x 12 in. blade;	Per dozen
wt. dozen 60 lbs.	\$17.50

One-half dozen in a bundle.



"Household"; Hollow Back

Carbon steel blade, 13 gauge, black finish; 26½ in. No. 2 grade Northern ash handle, smoothly sanded with steel D.

No. DHC—(Size 2) 7 x 11½ in. blade;	Per dozen
wt. per dozen 60 lbs.	\$9.60

One-half dozen in a bundle.



"Knoxall"; Lightweight Midget, Welded Plain Back

Special analysis high carbon steel blade, 15 gauge, polished finish; 27 in. No. 1 grade selected Northern ash handle, sanded and waxed, with split D. Length over all 39 inches.

No. 114—(Size 0) 6½ x 10½ in.	Per dozen
blade; wt. dozen 40 lbs.	\$16.00

One-half dozen in a bundle.

LONG HANDLE, GARDEN



"Diamond"; Welded Plain Back

Special analysis high carbon steel blade, 13 gauge black finish; 51 in. No. 1 grade selected white ash handle, sanded and waxed.

No. 125—(Size 2) 7 x 12 in. blade;	Per dozen
wt. dozen 60 lbs.	\$17.50

One-half dozen in a bundle.

LONG HANDLE, CONCRETE



"Genuine O. Ames"; Perforated, Welded Plain Back

Special alloy steel, heat treated blade, 13 gauge, black finish XXX grade select white ash handle sanded and waxed.

No. 152C—(Size 2) 7½ x 14 in.	Per dozen
blade; 4½ ft. handle; wt. dozen 60 lbs.	\$30.00
No. 1528C—(Size 2) 7 x 12 in. blade;	
8 ft. handle; wt. dozen 92 lbs.	42.00

One-half dozen in a bundle.

SPADES

D HANDLE, DITCHING



"Leechburg"; Welded Plain Back

High carbon steel heat treated blade, 14 gauge, black finish; 27 in. X grade selected white ash handle, sanded and waxed with lacquered Armor D.

Nos.	118-16	118-18
Size, in.	16	18
Blade, in.	6¼x16	6¼x18
Wt. dozen, lbs.	61	65
Per dozen	\$22.80	23.60

D HANDLE, DRAIN



"Leechburg"; Welded Plain Back

High carbon steel heat treated blade, 14 gauge; black finish; 27 in. X grade selected white ash handle, sanded and waxed, with lacquered Armor D.

Nos.	120-16	120-18
Size, in.	16	18
Blade, in.	4¼x16	4¼x18
Wt. dozen, lbs.	61	65
Per dozen	\$22.80	23.60

TELEGRAPH SHOVELS LONG HANDLE

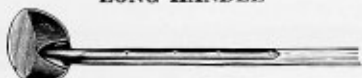


"Shuster" Welded Plain Back, with Bend

Special analysis high carbon steel heat treated blade, 13 gauge, black finish; 18 in. strap 8 ft. XX grade selected Northern ash handle.

No. 145—9¼x11¼ in. blade; wt. per dozen 118 lbs.	\$48.00
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TELEGRAPH SPOONS LONG HANDLE



"Shuster"; Welded Plain Back, Western Pattern

Special analysis, high carbon steel heat treated blade, 13 gauge, black finish, 18 in. strap; 8 ft. XX grade selected Northern ash handle.

No. 141—9½x8½ in. blade; wt. per dozen 118 lbs.	\$48.00
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COAL SHOVELS D HANDLE



"Monongah"; Corrugated Hollow Back, Featherweight

Special analysis high carbon steel heat treated blade 17 gauge black finish. 27 in. X grade selected Northern ash handle sanded and waxed, with lacquered Armor D.

No. 306M—(Size 2) 13¼x14½ in. blade; wt. per dozen 63 lbs.	\$21.30
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COAL SHOVELS D HANDLE



"Simpson"; Corrugated, Hollow Back

Special analysis high carbon steel blade, 17 gauge black finish; 27 in. No. 1 grade selected Northern ash handles, sanded and waxed, with lacquered Armor D.

Nos.	306-1	306-2
Size	1	2
Blade, in.	13¼x14	13¼x14½
Wt. dozen, lbs.	60	63
Per dozen	\$17.50	18.30

Nos.	306-3	306-4
Size	3	4
Blade, in.	14¼x15	14¼x15½
Wt. dozen, lbs.	66	69
Per dozen	\$19.10	19.90

One-half dozen in a bundle.

LONG HANDLE



"Simpson"; Corrugated, Hollow Back

Special analysis high carbon steel blade, 17 gauge, black finish, 51 in. No. 1 grade selected Northern ash handle, sanded and waxed.

Nos.	L306-2	L306-3
Size	2	3
Blade, in.	13¼x14½	14¼x15
Wt. dozen, lbs.	63	66
Per dozen	\$18.30	19.10

One-half dozen in a bundle.

LOCOMOTIVE AND COAL SCOOPS D HANDLE



Hollow Back, Eastern Pattern

High carbon steel blade, 16 gauge, black finish; 27 in. No. 1 grade selected Northern ash handle, sanded and waxed with lacquered Armor D.

Nos.	320-2	320-3	320-4
Size	2	3	4
Blade, in.	11¼x15	11½x15½	11¾x16
Wt. doz., lbs.	65	67	69
Per dozen	\$19.50	20.30	21.10

Nos.	320-5	320-6
Size	5	6
Blade, in.	12x16½	12¼x17
Wt. dozen, lbs.	71	74
Per dozen	\$21.90	22.70

Nos.	314-8	314-10
Size	8	10
Blade, in.	14½x17½	15½x18½
Wt. dozen, lbs.	77	80
Per dozen	\$21.00	21.80

One-half dozen in a bundle.

LOCOMOTIVE AND COAL SCOOPS LONG HANDLE



"Simpson" Hollow Back, Eastern Pattern

High carbon steel blade, 16 gauge, black finish; 47 in. No. 1 grade selected Northern ash handle, sanded and waxed.

Nos.	309-2	309-3	309-4
Size	2	3	4
Blade, in.	11¼x15	11½x15½	11¾x16
Wt. doz., lbs.	65	67	69
Per dozen	\$17.00	17.80	18.60

ASH PIT SCOOPS LONG HANDLE



Hollow Back, Low Lift

High carbon steel blade, 16 gauge black finish; selected ash handle.

Nos.	327-8	327-10
Size	8	10
Blade, in.	11½x15½	11¾x15½
Length handle, ft.	8	10
Wt. per dozen, lbs.	80	90
Per dozen	\$33.80	37.80

FURNACE SCOOPS D HANDLE



"Jumbo"; Hollow Back

High carbon steel blade, 16 gauge, black finish; 27 in. selected Northern ash handle, with indestructible D.

No. 322—(Size 0) 10½x14¼ in. blade; wt. dozen 45 lbs.	\$10.20
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LONG HANDLE



"Jumbo"; Hollow Back

High carbon steel blade, 16 gauge black finish; 47 in. selected Northern ash handle.

No. 323—(Size 0) 10½x14¼ in. blade; wt. dozen 45 lbs.	\$9.70
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POTATO SCOOPS D HANDLE



"Champion"; Socket Strap

Double tinned wire, stiff double steel socket strap and side pieces. 27 in. handle with standard wood D.

No. 25—13x16 in. blade; wt. dozen 68 lbs.	\$36.00
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All above, one-half dozen in a bundle.

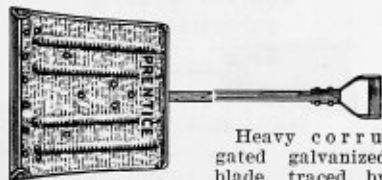
SNOW SHOVELS SPRING STEEL



Made of high carbon steel, well braced and bolted.
Long hardwood handle with steel D top.
Nos. 55 56
Blade, in. 17x16 21x16
Wt. per dozen, lbs. 74 86
Per dozen \$17.60 18.90

One-half dozen in a bundle.

GALVANIZED STEEL



Heavy corrugated galvanized blade, traced by angle steel ribs riveted to the blade and handle. Blade is reinforced by a rod enclosed in the edges. Extra heavy ribbed steel shoe. Hardwood handle with iron D top.

Per dozen
No. 33—21x16 in. blade; wt. per dozen 61 lbs. \$18.90

One-half dozen in a bundle.

GOOD LUCK



Galvanized steel blade, steel rod enclosed in edges for reinforcement. Ribbed steel shoe. Hardwood split D handle.

Per dozen
No. 34—17x16 in.; wt. per dozen 47 lbs. \$13.40

One-half dozen in a bundle.

SNOW PUSHERS



Curved heavy carbon 16 gauge steel blade. Socket riveted type; 45 inch selected ash handle.

Nos. 411 413
Blade in. 10x18 10x24
Wt. per dozen, lbs. 76 92
Per dozen \$13.33 15.54

One-quarter dozen in a bundle.

SIDEWALK CLEANERS



Union Quality Shank Pattern

Forged from solid steel, one-third polished blades; plain ferrule; black finish; 4½ ft. selected handle.

Per dozen
No. USC—7 in. wide blade, 6 in. deep; wt. dozen 43 lbs. \$10.00
One-half dozen in a bundle.



Union Quality Socket Pattern

Forged from solid steel, one-third polished blade; black finish; 4½ ft. selected handle.

Per dozen
No. SSC—7 in. wide blade, 6 in. deep; wt. dozen 43 lbs. \$12.64
One-half dozen in a bundle.

"D" TOPS

I-D-L STEEL

Improved, heavy type. Wood grip.



Per dozen
No. 3—4½ in. grip, 2 in. long socket, 1½ in. inside diam.; wt. doz. 8 lbs. \$3.80
Open stock.

IMPLEMENT HANDLES

All handles are sanded smooth and waxed leaving them in their natural color with a high lustre.

LONG SHOVEL



Ames Pattern, Heavy, Double Bend
X Quality

Per dozen
No. ALS—4½ ft. long; wt. dozen 22 lbs. \$9.00

SPLIT D SHOVEL



Ames Pattern, Heavy, Double Bend
X Quality

Per dozen
No. ASD—30 in. long; wt. dozen 20 lbs. \$9.80



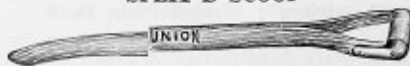
Chisholm Pattern, Light, Single Bend
X Quality

Per dozen
No. CSD—30 in. long; wt. dozen 20 lbs. \$9.80
All above, one dozen in a bundle.

IMPLEMENT HANDLES

All handles are rounded smooth and waxed leaving them in their natural color with a high lustre.

SPLIT D SCOOP



Regular, Heavy; Single Bend

X Quality Per dozen

No. SDS—30 in. long; wt. dozen 21 lbs. \$9.80

STEEL D SPADING FORK



Bent and Bored, with Strap Ferrule and Cap

XX Quality Per dozen

No. 154—30 in. long, IDL steel D; wt. dozen 24 lbs. \$14.30

Bent and Bored, with Strap Ferrule and Cap

No. 1 Quality

Per dozen
No. 166—30 in. long, JR steel D; wt. dozen 24 lbs. \$11.30

SPLIT D SPADE



Light, Double Bend

X Quality Per dozen

No. SD-RS—30 in. long; wt. dozen 21 lbs. \$9.80

I-D-L STEEL D COKE FORK



Bent with Strap Ferrule and Cap

No. 1 Quality Per dozen

No. SDCF—30 in. long; wt. dozen 25 lbs. \$11.30

RIGHT REPAIR GARDEN HOE



Socket Pattern; Chucked but Not Bored, without Ferrule

XX Quality Per dozen

No. 228—4½ ft. long; wt. dozen 15 lbs. \$7.50

Shank Pattern, Plain Ferrule

No. 1 Quality

Per dozen
No. 250—4½ ft. long; wt. dozen 18 lbs. \$3.80

GARDEN RAKE



Plain Ferrule

Nos.	321	331	336
Length, ft.	5	5½	5
Quality	X	XX	1
Rake used on....	R. Bow	L. Hd.	L. Hd.
Wt. dozen, lbs....	19	20	19
Per dozen.....	\$8.30	10.50	6.80

PLANTER EYE HOE



X Quality, Sanded and Waxed
1¼ in. diam. at butt.

Per dozen
4½ Foot Length—Wt. dozen 22 lbs. \$7.90
All above, one dozen in a bundle.

POWER LAWN MOWERS

COLDWELL SUPER L TWIN

Particularly suitable for the job of mowing, rolling and trimming the lawn when capacity mowing at the very minimum of time and expense is required. Plenty of power for grades. May be used for trimming along driveways, walks, and around trees. Larger widths of cut are made by the addition of extra cutting units.

Super L Twin 25 Specifications

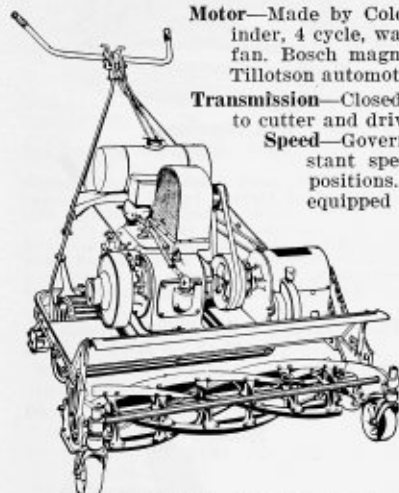
Motor—Made by Coldwell, 5½ H. P. twin cylinder, 4 cycle, water cooled by radiator and fan. Bosch magneto-flywheel type ignition. Tillotson automotive type carburetor.

Transmission—Closed type dual control power to cutter and drive roller.

Speed—Governor control maintains constant speed, adjustable to 3 speed positions. 5 miles per hour top speed, equipped with throttle.

Frame—Structural electric welded. Differential pinions and drive roller bearings have Zerk fittings for lubrication. 9¼ in. diameter two section traction rollers, full width corrugations cast-in.

Cutting Unit—Full floating demountable front with sectional guard roller. Revolving cutter with five high carbon alloy steel blades, Norma-Hoffman ball bearing, Zerk fittings for lubrication. Chrome alloy heat treated steel bed knife. diameter cutter 7 in.



looy steel blades, Norma-Hoffman ball bearing, Zerk fittings for lubrication. Chrome alloy heat treated steel bed knife. diameter cutter 7 in.

Height of Cut—¾ to 2 in.

Finish—Special green with gold trim.

Super L Twin 25—Width of cut 25 in., net wt. each 440 lbs.; shipping wt. 505 lbs.\$335.00

Open stock.

COLDWELL RED TOP DE LUXE

A new and superior low priced power mower especially designed for small estates, trimming large areas and miscellaneous cuttings.

Specifications

Motor—Coldwell design 4 cycle horizontal enclosed 2½ H. P., water cooled by radiator and fan. Bosch magneto flywheel type ignition. Tillotson automotive type carburetor.

Transmission—Automotive type. Two cone type clutches—one for cutting



and one for the drive wheels.

Speed—Governor control, may be adjusted to 3 speed position. 4 miles per hour top speed.

Frame—Goodyear pneumatic tires on drive and caster rollers. Zerk fittings for lubrication.

Cutting Unit—Full floating, demountable 5 blade revolving cutter, Norma-Hoffman ball-bearing. High carbon alloy steel blades, and chrome alloy heat treated steel bed knife. Diameter cutter 7 in.

Height of Cut—¾ to 2 in.

Finish—Green with red trim.

Red Top De Luxe—Width of cut 21 in., net wt. each 295 lbs.; shipping wt. each 359 lbs.\$190.00

Open stock.

POWER LAWN MOWERS

COLDWELL CUB

A popular single cylinder mower built to do the job of mowing, rolling and trimming the lawn on small and medium sized estates.

Specifications

Motor—Coldwell design and manufacture. Single cylinder, 4 cycle horizontal enclosed. Rated 2½ H.P., Water cooled by radiator and fan. High tension



magneto ignition. Forced, oil pump lubrication. Tillotson automotive type carburetor.

Transmission—Automotive type, self-adjusting, cone clutches.

Speed—Governor control maintains constant speed adjustable to 3 speed positions, 4 miles per hour top speed.

Frame—Two section, rubber covered drive roller. Sections equipped with steel cut differential pinions and gears. Zerk fittings for lubrication on differential pinions.

Cutting Unit—Full floating demountable 5 blade revolving cutter, Norma Hoffman ball bearing. High carbon alloy steel blades and chrome alloy heat treated steel bed knife. Diameter of cutter 7 in.

Height of Cut—¾ to 2 in.

Finish—Stem green with gold and black trim.

Cub—Width of cut 21 in.; net weight each 350 lbs.; shipping wt. each 420 lbs.\$237.50

Open stock.

COLDWELL BROWNIE DE LUXE

A compact and sturdy power mower for the small estate and for trimming in parks and cemeteries.



Specifications

Motor—Powered by a Briggs and Stratton air cooled engine.

Transmission—Special cone type clutch. Dual handle control.

Frame—Specially designed frame with wood guard rollers in three sections. Triple pawl differential in wheel. Cut gears and sprockets. Roller bearings throughout; adjustable handle. Drive wheels equipped with Goodyear All-Weather pneumatic tires.

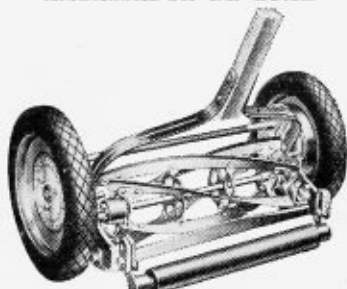
Cutting Unit—Five blade revolving cutter. Specially designed knife bar and bottom knife.

Finish—An attractive combination of colors.

Brownie De Luxe—Width of cut 19 in., net weight each 133 lbs.; shipping weight each 175 lbs.\$108.50

Open stock.

AMBASSADOR DE LUXE



Roller Bearings

Pneumatic tired wheels adjustable for end play. Rubber covered guard roller, ball bearing.

Heat treated steel blades. High carbon alloy steel, heat treated bottom knife, lipped cutting edge, 6 in. diameter revolving cutter.

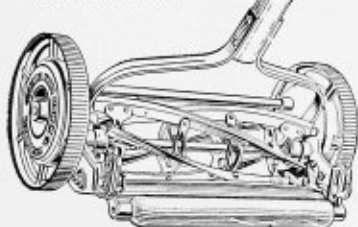
Direct drive through internal gears and heavy case-hardened notched steel sliding pawls. Norma Hoffman ball bearings.

Apple green body with coach green and gold trim.

Five Blades, 10 in. Drive Wheels

Nos.	AD-16	AD-18
Width cut, in.	16	18
Wt. each, lbs.	53	55
Each	\$18.75	19.75

AMBASSADOR



Roller Bearings

Solid type wheels, adjustable for end play. Heat treated steel blades. High carbon alloy steel, heat treated bottom knife, lipped cutting edge; 6 in. diameter revolving cutter.

Direct drive through internal gears and heavy case-hardened notched steel sliding pawls. Norma Hoffman ball bearings.

Apple green body with coach green and gold trim.

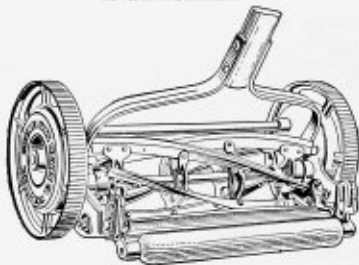
Five Blades, 10 in. Drive Wheels

Nos.	A14	A16	A18
Width cut, in.	14	16	18
Wt. each, lbs.	51	53	55
Each	\$14.40	15.25	16.25

All above, one in a box.

COLDWELL LAWN MOWERS

INTERSTATE



Ball Bearings

Solid type wheels.

Heat treated steel blades, high carbon alloy steel, heat treated, lipped cutting edge bottom knife, 6 in. diameter revolving cutter.

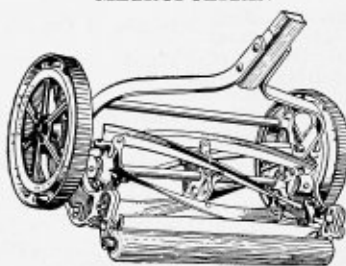
Direct drive through internal gears and heavy, case-hardened, notched, steel sliding pawls.

Gold finished body with red and green trim.

Five Blades, 10 in. Drive Wheels

Nos.	I-14	I-16	I-18
Width cut, in.	14	16	18
Wt. each, lbs.	50	52	54
Each	\$8.95	9.40	10.00

METROPOLITAN



Ball Bearings

Open type wheels, reinforced spokes and rims.

Heat treated steel blades; high carbon alloy steel, heat treated, lipped cutting edge bottom knife, 6 in. diameter revolving cutter.

Direct drive through internal gears and case-hardened, flat round-edged steel sliding pawls.

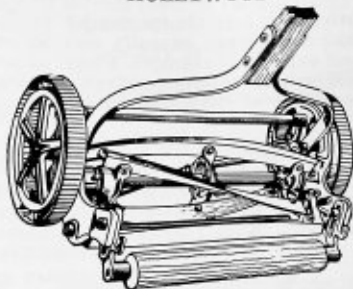
Gold finished body with red and green trim.

Four Blades, 10 in. Drive Wheels

Nos.	M-14	M-16
Width cut, in.	14	16
Wt. each, lbs.	47	49
Each	\$6.75	7.00

All above, one in a box.

HOLLYWOOD



Ball Bearings

Open type wheels, reinforced spokes and rims.

Heat treated steel blades. High carbon alloy steel, heat treated lipped cutting edge bottom knife, 5 in. diameter revolving cutter.

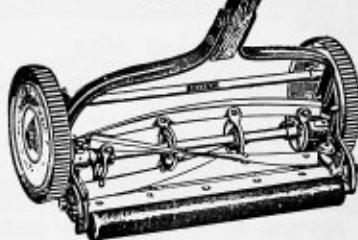
Direct drive through internal gears and heavy case-hardened flat, round edged steel sliding pawls.

Gold finished body with red and orange trim.

Four Blades, 8 in. Drive Wheels

Nos.	H-12	H-14	H-16
Width cut, in.	12	14	16
Wt. each, lbs.	36	38	40
Each	\$6.10	6.25	6.40

MIDDY



Plain Bearings

Open type wheels.

Heat treated steel blades. High carbon alloy steel, heat treated, lipped cutting edge bottom knife, 5 in. diameter revolving cutter.

Direct drive through internal gears and heavy, case-hardened, flat, round-edged steel sliding pawls.

Gold finish body with red and green trim.

Three Blades, 8 in. Drive Wheels

Nos.	PB-12	PB-14
Width cut, in.	12	14
Wt. each, lbs.	34	36
Each	\$5.40	5.55

All above, one in a box.

PHILADELPHIA LAWN MOWERS

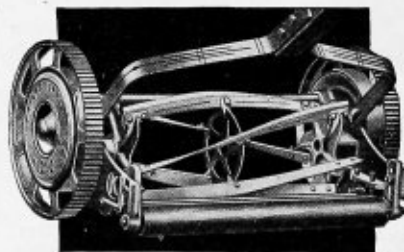
STYLE "A"
Plain Bearings

Semi-open wheels. Crucible steel blades. Special chrome steel bottom knife, 6% in. revolving cutter. Equipped with a single train of gears. Cutter driven by both wheels. Adjustable bearings. Gold finished body with red trim.

Four Blades, 10 in. Drive Wheels

Nos.	PA15	PA17	PA19	PA21
Width cut, in.	15	17	19	21
Wt. each, lbs.	39	42	44	46
Each	\$22.50	25.50	28.50	31.50

One in a box.

STYLE "K"
Plain Bearings

Semi-open wheels. Crucible steel blades. Special chrome steel bottom knife, 6% in. revolving cutter.

Internal gear-driven with flat sliding pawl ratchets at each end of the cutter.

Gold finished body with red trim.

Five Blades, 10 in. Drive Wheels

Nos.	PK14	PK16	PK18	PK20
Width cut, in.	14	16	18	20
Wt. each, lbs.	40	42	44	46
Each	\$16.00	17.00	18.00	19.00

One in a box.

NOTE—We Carry a Complete Line of Repair Parts

GARDEN HOSE STAR



Black or Red

Hose within a hose, due to the two separate braids of cord reinforced with a rubber wall between. Furnished with black or red cover, in decagon design.

Size 1/2 in.; O. S. Diameter 3/4 in.

Nos.	S25-1/2	S50-1/2	S500-1/2
Length, ft.	25	50	500
Style	Coupled	Coupled	Uncoupled
Ft. in bale.	125	250	500
Wt. bale, lbs.	38	72	140
Per length .. \$....		100 ft.	

Size 3/4 in.; O. S. Diameter 1 1/4 in.

Nos.	S25-3/4	S50-3/4	S500-3/4
Length, ft.	25	50	500
Style	Coupled	Coupled	Uncoupled
Ft. in bale.	125	250	500
Wt. bale, lbs.	45	89	164
Per length .. \$....		100 ft.	

Size 1 in.; O. S. Diameter 1 1/2 in.

Nos.	S25-1	S50-1	S500-1
Length, ft.	25	50	500
Style	Coupled	Coupled	Uncoupled
Ft. in bale.	125	250	500
Wt. bale, lbs.	52	101	194
Per length .. \$....		100 ft.	

Prices on application.

RECORD "COTTON CARCASS"



Black

A single braid hose. Black cover, polyhedral design with 15 flat sides.

Size 3/4 in.; O. S. Diameter 1 1/4 in.

Nos.	R-25	R-50
Length, ft.	25	50
Style	Coupled	Coupled
Ft. in bale	125	250
Wt. bale, lbs.	37	72
Per length .. \$....		

Prices on application.

HOSE WASHERS GOOD LUCK



Red Rubber

Tough, alive and springy. Instead of getting hard, shrinking and falling out of the coupling, they stay soft and hold firmly in place, saving the time and temper caused by a leaky connection or a missing washer.

Per dozen

Good Luck—1 doz. washers in a box; wt. per doz. 3/4 lb. \$0.10

Two dozen boxes in a display carton.

HOSE CLAMPS SHERMAN



Heavy Wrought Brass

Cannot rust. Tongue runs in channel holding it close to hose, making a uniform grip; pliable in band portion, grips tight and can be opened up, removed and used over again.

Garden Hose Sizes

For hose, in.	1/2	3/4	1
No. of plies	3	3	3
I. D. open, in.	1 1/8	1 3/8	1 7/8
Wt. gross, lbs.	5 3/4	6 1/2	6 3/4
Per dozen	\$0.50	.50	.50
One gross in a box.			

Water Hose Sizes

For hose, in.	1	1 1/4	1 1/2
No. of plies	3	4	3
I. D. open, in.	1 1/8	1 3/8	1 7/8
Gross in box	1 1/2	1 1/2	1 1/2
Wt. gross, lbs.	18	20	21
Per dozen	\$2.00	2.00	2.50

For hose, in.	1 1/4	1 1/2	1 3/4
No. of plies	4	3	4
I. D. open, in.	1 3/8	1 7/8	2 1/8
Gross in box	1 1/2	1 1/2	1 1/2
Wt. gross, lbs.	23	30	31
Per dozen	\$2.50	3.00	3.00

NELSON

Galvanized Steel



Made of heavy sheet steel. Strong and serviceable and easy to apply. Uniform grip on hose.

Garden Hose Sizes

For hose, in.	1/2	3/4
No. of plies	3	3
I. D. open, in.	1 1/8	1 3/8
Wt. gross, lbs.	5 3/4	7 3/4
Per dozen	\$0.32	.36
One-half gross in a carton.		

Water Hose Sizes

For hose, in.	1	1 1/4	1 1/2
No. of plies	3	4	3
I. D. open, in.	1 1/8	1 3/8	1 7/8
Dozen in box	6	6	3
Wt. gross, lbs.	13 3/4	13 3/4	19 3/4
Per dozen	\$0.72	.72	1.50

For hose, in.	1 1/4	1 1/2	1 3/4
No. of plies	4	3	4
I. D. open, in.	1 3/8	1 7/8	2 1/8
Dozen in box	3	3	3
Wt. gross, lbs.	20 1/4	22 1/4	22 1/4
Per dozen	\$1.50	1.80	1.80

HOSE MENDERS PERFECT CLINCHING



With non-cutting, long reach fingers, fish-hook hold.

To be inserted in the hose and hammered down. It leaves the hose as smooth, strong and tight as a new hose.

No. 20—Brass Tubes, Cadmium Plated Steel Clamps

For hose, in.	1/2	3/4	1
Wt. per doz., lbs.	1	1	1
Per dozen	\$1.00	1.00	1.00

Two dozen in a display box.

HOSE COUPLINGS PERFECT CLINCHING



Long reach, non-cutting fingers with ends rolled under, a fish-hook hold.

Attached with a hammer; makes a smooth, perfect joint that cannot leak. Washer recess to keep washer from falling out.

No. 100—Brass Tubes

Cadmium Plated Steel Clamps

For hose, in.	1/2	3/4	1
Wt. per doz., lbs.	2 1/4	2 1/2	3
Per dozen	\$3.00	3.00	3.00
One dozen in a box.			

SHERMAN STANDARD



No. 25E—Heavy Wrought Brass, Die Cut Threads, Full Length Tails

For hose, in.	1/2	3/4	1
Wt. per doz., lbs.	1 1/2	2	2 1/2
Per dozen	\$1.92	1.92	1.92

HOSE NIPPLES CAST BRASS



Hose thread on one end and taper iron pipe thread on other.

No. 91—Male

Size, in.	1/2	3/4
Wt. doz.		
lbs. ...	2 1/4	2 1/2
Per doz. ...	\$3.12	3.12



Hose thread on male end and taper iron pipe thread on other end.

No. 92—Male and Female

Size, in.	1/2	3/4
Wt. per doz., lbs.	2 1/4	2 1/2
Per dozen	\$3.12	3.12

HOSE ADAPTERS CAST BRASS



For making connections between Pittsburgh Gauge and Standard 3/4 in. hose thread.

Per dozen

No. 1—Pittsburgh gauge male by 3/4 in. Standard thread female ...	\$3.85
No. 2—Pittsburgh gauge female by 3/4 in. Standard thread male ...	3.85
Weight per dozen 2 pounds.	

WATER THIEVES ROYLE ATTACHMENTS



For attaching hose to plain bibb or faucet. Heavy cast brass; carefully finished; high grade rubber washer.

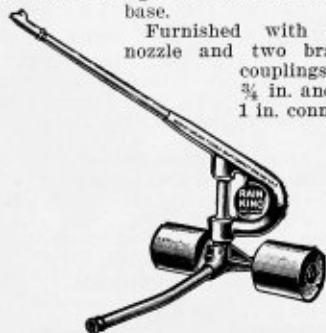
Nos.	55 1/2	55 3/4
For faucet, in.	1/2	3/4
Hose thread, in.	3/4	1
Wt. per doz., lbs.	4	5
Per dozen	\$7.00	8.00

All above, open stock.

LAWN SPRINKLERS MODEL "E" RAIN KING

For golf course, parks, and large estates. Principle similar to No. G below, but mounted on green enameled steel roller base.

Furnished with three-jet nozzle and two brass hose couplings, one for $\frac{3}{4}$ in. and one for 1 in. connection.



Each
No. E—18 in. wide at base, 27 in. high over all; wt. each 25 lbs. \$17.50
One in a carton.

MODEL "G" RAIN KING



Throws every known kind of spray over circles 12 to 100 ft. Turns fast or slow on the level or on slopes. New 2-jet nozzle, sprays right up to the base.

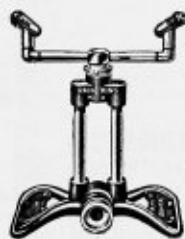
Handy nozzle thumb nut adjusts main discharge for heavy or fine spray. Also controls distance.

Disc type, easy to move base. Simple, strong and durable. $\frac{3}{4}$ in. hose connection.

Green enameled body; brass arm, nozzle and upright; bronze bearings.

Per dozen
No. G—8 in. diam. base, 11½ in. high over all; wt. per doz. 66 lbs. \$42.00
One in a carton.

MODEL "D" RAIN KING



Exceptionally efficient on all water pressures or any spray. Covers circle 50 ft. in diameter at 25 lbs. pressure. Sets quickly to turn fast or slow or for stationary sprinkling.

Has double brass water column, wide spread base with hose coupling. Arms, nozzles, uprights and hose coupling all brass, balance finished in rich red enamel.

Per dozen
No. D—7½ in. wide at base, 9 in. high over all; wt. per doz. 38 lbs. \$27.00
One in a carton.

LAWN SPRINKLERS PERFECT ROTARY



Operates on any pressure and requires no adjustment. Revolving head and arms with center fan spray. No friction or wear.

Heavy cast sled runner base, other parts of brass. Brass parts polished, base green lacquered.

Per dozen
No. 400—7x6 in. base, 7 in. high over all, 15 in. spread of arms; wt. per doz. 36 lbs. \$27.00
One in a carton.

ANACONDA



Revolving polished brass head and arms, and brass ornamental ferrule.

Base and stem red and black enameled.

Per dozen
Anacoda—8x7½ in. base, 10½ in. high over all, 10½ in. spread of arms; wt. per doz. 37 lbs. \$20.00
One in a box.

ARMSTRONG-NELSON FOUNTAIN



Brass with holes so pierced that mist-like spray is produced. The finely divided, dewy spray closely resembles nature's gentlest shower. Highly polished.

Per dozen
No. 25—8½ in. diam.; wt. per doz. 13½ lbs. \$10.80
One in a display box.

MULTIPLE SPRAY HEADS SHERMAN PORTABLE



Used for connecting short lengths of hose and sprinkling over a large area from one hose line. Single head with end cap effective for moderate areas.

Heavy cast brass body; nickel plated and mounted on heavy enameled steel base of ample length. Head needs no adjustment.

Per dozen
No. 75—¾ in. hose thread; wt. per doz. 7 lbs. \$8.00
Four in a box, with two end caps.

HOSE NOZZLES TRI-CON

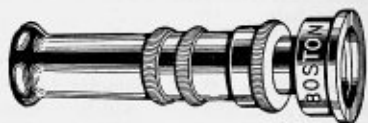


Solid brass, nickel plated, trigger controlled; a slight pressure on the trigger controls force of stream. Instant shut-off. Throws fine spray or a full stream.

Furnished with metal base which adapts it for use as a lawn sprinkler.

Per dozen
Tri-Con—For ¾ in. hose; wt. per doz. 12 lbs. \$17.00
Six individual cartons in a display box.

BOSTON



Solid cast brass, extra heavy, polished, adjustable for spray or full stream, positive shut-off.

Per dozen
Boston—For ¾ in. hose; wt. per doz. 6 lbs. \$9.00
One dozen in a box.

RAIN KING



Chromium plated, machined from solid brass on the latest automatic precision machinery. Leak and stick proof.

One-piece construction, quickly set for any spray or stream, delivers 5% to 20% more water than any other nozzles of larger size.

Per dozen
No. NI—3¾ in. long, for ¾ in. hose; wt. per doz. 3½ lbs. \$6.00
One-half dozen on a counter display box.

RAIN BOY



Heavy wrought brass. Each part made to accurate gauges. No part is cast, no leaky sand holes. Adjustable from a heavy course stream to an even wide spray and a complete shut-off. Each tested on 100 lbs. water pressure.

Per dozen
Rain Boy—For ¾ in. hose; wt. per doz. 6 lbs. \$7.20
One dozen in a box.

SPRAYERS

LOWELL PENNANT, COM-
PRESSED AIR



Designed for spraying small orchard & field crops, shrubbery, etc. Ideal for whitewashing, disinfecting and wall-paper removing.

Galvanized sheet steel tank riveted and soldered and equipped with funnel.

Pump handle and top cap made of malleable iron. New type valve positive in action. Solution tube $\frac{3}{4}$ in. size extends to bottom of tank. Seamless brass tube pump.

No. 40G—4 gal. cap.; tank $7\frac{1}{4}$ in. diameter, 20 in. high; pump $1\frac{3}{4}$ in. diameter, 14 in. long; with 24 in. hose, 24 in. brass extension; adjustable Aphid nozzle and shut-off valve; wt. each $9\frac{1}{2}$ lbs.\$6.25

One in a carton.

LOWELL STREAMER, COM- PRESSED AIR



A practical sprayer for the farm, garden, dairy man, etc. Will handle white wash, cold water paints, insecticides, fungicides, and disinfectants.

Galvanized sheet steel tank riveted and soldered and equipped with funnel.

Pump handle and top made of malleable iron. Positive, bronze ball valve. Solution tube $\frac{3}{4}$ in. size extends to bottom of tank. Seamless brass tube pump.

No. 92G—3 $\frac{3}{4}$ gal. capacity; tank $7\frac{1}{4}$ in. diameter, 20 in. high; pump $1\frac{3}{4}$ in. diameter, 14 in. long; with 24 in. hose, 24 in. brass extension; angle nozzle and shut-off valve; wt. each $8\frac{3}{4}$ lbs.\$5.00

One in a carton.



LOWELL FOUNTAIN, COMPRESSED AIR

May be used for all kinds of spray work, including gardens, poultry houses, dairy barns, etc.; also for commercial insecticide and disinfectant work in hotels, schools and other public buildings.

Galvanized steel tank, closely riveted and soldered. Pump of brass tubing is mounted outside of tank; screws into brass seat containing brass ball check valve.

No. 70G—3 $\frac{1}{2}$ gal. capacity; tank 9 in. diameter, 13 in. high; pump $1\frac{3}{4}$ in. diameter, 12 in. long; with 3 ft. of hose, 12 in. brass extension nozzle and fittings, automatic brass nozzle with reversible tube; wt. each 11 lbs.\$6.75

One in a carton.

SPRAYERS

PARAGON

Especially designed for industrial and institutional uses. Satisfactory for the application of cement, paint, whitewash, mill white, cold water paints as well as all spraying solutions, insecticides, etc.

Extra heavy reinforced galvanized tank. Specially designed pump with all valves of brass, is not submerged in solution. Short easy stroke pump handle.



Large brass air chamber insures high pressure and constant spray. Galvanized agitator keeps solution thoroughly mixed, 16 sq. in. strainer surface cleaned at each stroke.

No. 3 — Mounted on a strong two-wheel truck.

No. 3—12 gal. capacity; complete with 10 ft. special spray hose, $7\frac{1}{2}$ ft. spray pipe, 1 brass mist spray nozzle, 1 brass straight spray nozzle, 1 steel spray nozzle; wt. each 60 lbs.\$19.75

One sprayer in carton, truck separate.



No. 1 Equipped with convenient carrying handle.

No. 1—6 gal. capacity, complete with 5 ft. special spray hose, 5 ft. spray pipe, 1 brass mist spray nozzle, 1 brass straight spray nozzle, 1 steel spray nozzle; wt. ea. 30 lbs.\$15.35

One in a carton.

BUCKET SPRAY PUMPS

LOWELL KNIGHT



A sturdy, all brass, double acting continuous spray pump. Handles stock dips, cold water paints, insecticides, disinfectants, etc. Develops 150 lbs. nozzle pressure.

Seamless brass tubing cylinder. Bronze ball valves, seamless brass tubing air chamber.

Unbreakable malleable iron handle, clamp and foot piece.

No. 722—Cylinder $1\frac{1}{2}$ in. diameter, 18 in. long; air chamber $\frac{3}{4}$ in. diameter, 19 in. long; with 3 ft. of $\frac{3}{4}$ in. hose, 12 in. curved brass extension rod, disc type nozzle; wt. each 5 lbs.\$3.25

One in a carton.

MORTAR MIXING BOXES

JACKSON STEEL



Sides and bottom are formed from a single sheet of steel. Corners are lapped and riveted, making the box watertight.

Top flanges are reinforced with malleable iron at the corners. Top edges are flanged out and down for reinforcing; form a good hand hold.

Ends curved into bottom will not catch hoe. No places for mortar to accumulate and harden.

Nos.	40	50
Length, in.	60	90
Width, in.	32	42
Depth, in.	11	11
Gauge steel	16	14
Wt. each, lbs.	65	150
Each	\$15.00	21.00

Open stock.

DRAG SCRAPERS

KEYSTONE

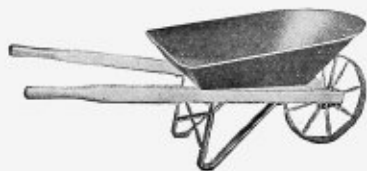


Pressed from high carbon steel plate. Seamless throughout and smoothly rounded with reinforcing flange around top edge. Steel ball fitted with forged steel swivel. Selected round wood handles on sides.

With Two Steel Runners

Nos.	1	2
Cap., cubic ft.	7	5
Wt. each, lbs.	85	75
Each	\$10.50	10.00

Open stock.

WHEELBARROWS**MIDDY, GENERAL PURPOSE****With Round Front Tray**

Pressed steel tray; varnished hardwood handles; steel channel legs, wide section. Steel wheel; malleable iron brackets. Tray painted blue, legs and wheel black.

- Each
- Middy**—Cap. 3 cu. ft.; 18 ga. tray; 33½x26 in.; 8 spoke wheel; wt. each 38 lbs.\$4.90
- No. TX3—Extra tray**; wt. each 14 lbs. 2.50
- No. 11-R—Extra wheel**; wt. each 9½ lbs. 1.90

JACKSON, GENERAL PURPOSE**With Square Front Tray**

Pressed steel tray, varnished hardwood handles with wheel guard; heavy steel channel legs with steel shoes. Steel wheel, malleable brackets. Tray painted blue, other metal parts black.

- Each
- No. K-5X**—Cap. 4 cu. ft.; 16 ga. tray, 36x28½ in.; 16 in. wheel; wt. each 64 lbs.\$9.00
- No. K5X—Extra tray**; wt. 25 lbs. 4.50
- No. 12—Extra wheel**; wt. 13¾ lbs. 2.30

JACKSON, CONTRACTORS**With Round Front Tray**

High carbon pressed steel tray with steel rod reinforcement around top edge. Heavy channel steel legs, securely riveted, with full bearing surface on handles, fitted with special steel shoes. Malleable iron brackets tapped to receive threaded axles. Hardwood handles fitted with square wheel guards of heavy channel.

Tray is painted blue; legs and wheel black; handles varnished light oak color.

- Each
- No. M-4**—Cap. 4 cu. ft.; 16 ga. tray, 37½x27½ in.; 16 in. wheel; wt. each 68 lbs.\$10.20
- No. M-4—Extra tray**; wt. each 27 lbs. 5.20
- No. 12—Extra wheel**; wt. each 13¾ lbs. 2.30
- All above, one in a bundle, knocked down.

WHEELBARROWS**JACKSON, CONTRACTORS****With Round Front Tray**

Riveted steel tray with wired edges. Riveted channel legs with special shoes. Varnished handles with square front channel wheel guards.

Tray painted blue, all other metal parts painted black.

- Each
- No. M11**—Cap. 5 cu. ft.; 16 ga. tray, 38 in. long, 25 in.; wide front, 24 in. wide rear; 16 in. wheel; wt. each 75 lbs.\$10.80
- No. M11—Extra tray**; wt. each 33 lbs. 6.30
- No. 13—Extra wheel**; wt. each 16 lbs. 2.60

JACKSON, TUBULAR**With Square Front Tray**

Pressed steel tray with wired edges. Riveted channel legs with heavy shoes. Sandproof malleable iron brackets. Non-slip tray device. Painted black over all.

- | Nos. | TT | T-1 | T-2 |
|------------------|--------|--------|--------|
| Cap. cu. ft. | 3 | 3 | 3 |
| Gauge of tray | 16 | 16 | 15 |
| Size tray, in. | 32½x28 | 32½x28 | 33x28¾ |
| Diam. wheel, in. | 16 | 16 | 16 |
| Wt. each, lbs. | 65 | 70 | 72 |
| Each | \$8.80 | 9.50 | 10.00 |

- | Nos. | T-3 | T-4 |
|------------------|---------|--------|
| Cap. cu. ft. | 3 | 3 |
| Gauge of tray | 14 | 12 |
| Size tray, in. | 33x28¾ | 33x28¾ |
| Diam. wheel, in. | 16 | 16 |
| Wt. each, lbs. | 75 | 82 |
| Each | \$10.60 | 11.50 |
- All above, one in a bundle, knocked down.

Extra Trays

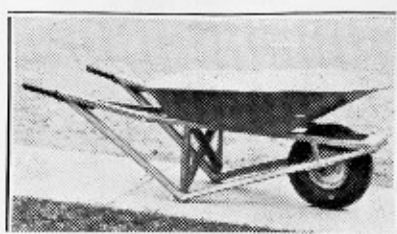
- | Nos. | TT | T1 | T2-XT |
|---------------------|--------|------|-------|
| For bar'ws, Nos. TT | T-1 | T-2 | |
| Wt. each, lbs. | 21 | 23 | |
| Each | \$3.90 | 4.00 | 4.40 |

- | Nos. | T3-XT | T4-XT |
|-------------------|--------|-------|
| For barrows, Nos. | T-3 | T-4 |
| Wt. each, lbs. | 25 | 34 |
| Each | \$4.90 | 5.90 |

Extra Wheels

- | Nos. | 11 | 12 |
|-------------------|--------|----------------|
| For barrows, Nos. | TT | T1, T2, T3, T4 |
| Wt. each, lbs. | 10½ | 13¾ |
| Each | \$2.00 | 2.30 |

All Jackson Wheelbarrows can be furnished with Pneumatic or Solid Rubber Tire Wheels.

WHEELBARROWS**HYB-LUM ALUMINUM****With Round Front Tray**

Riveted tray and frame made of high strength nickel aluminum alloy. Steel rod reinforcement around top edge of tray. Top and bottom members of frame are of channel section, braces are angle sections.

Black painted, hard maple handles, riveted and bolted to frame.

Four-ply double-tube pneumatic tire mounted on a ball-bearing wheel.

- Each
- Model B**—Cap. 2½ cu. ft.; tray 36½x27 in.; 4x14 in. Heavy-Duty Goodyear Tire; wt. each 33 lbs.\$22.50
- Open stock, knocked down.

JACKSON GARDEN

Light in weight, exceptionally strong and properly balanced.

Hardwood frame with three cross braces mortised in handles.

18 in. steel wheel, eight ¾ in. round spokes. 1½x¼ in. tire. Wood parts red, varnished; metal parts black.

- Each
- No. 5**—Length over all 62½ in., width over all 24¼ in., height over all 26 in., bed 26¼ in. long x 19 in. wide front x 22½ in. wide rear x 12 in. deep; weight each 48 lbs.\$6.80
- No. 11G—Extra Wheel**; wt. each 10 lbs. 2.20
- Open stock, knocked down.

WHEELBARROW WHEELS**PNEUMATIC TIRE****Plain Bearing**

A sturdy disc wheel equipped with a 16x4 in., 2-Ply single tube pneumatic tire.

Runs freely over uneven places and lessens vibration. Wheels heavy loads with less effort.

- Each
- No. 12P**—Hubs 7 in. long, 5/8 in. axle; wt. each 11 lbs.\$9.80
- Open stock.

SNAPS

ROUND EYE, BOLT



Malleable iron, cadmium plated.

Nos.	125- $\frac{3}{8}$	125- $\frac{1}{2}$	125- $\frac{5}{8}$
Eye, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Dozen in box.	6	6	6
Wt. dozen, lbs.	1 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$
Per dozen	\$0.95	.95	1.00

OPEN EYE, BOLT



Malleable iron, cadmium plated.

Nos.	235	240
Size eye, in.	$\frac{3}{8}$	$\frac{1}{2}$
Length over all, in.	3 $\frac{3}{8}$	4
Dozen in box.	3	2
Wt. dozen, lbs.	1 $\frac{1}{2}$	2 $\frac{1}{2}$
Per dozen	\$1.75	2.50



Malleable iron, cadmium plated.

No. 250— $\frac{5}{8}$ in. eye, $5\frac{1}{2}$ in. long over all; wt. dozen 6 lbs.	\$5.00
Two dozen in a box.	

ROUND EYE SWIVEL BOLT



Malleable iron; brass wire spring; cadmium plated.

Nos.	225- $\frac{5}{8}$	225- $\frac{3}{4}$
Eye, in.	$\frac{5}{8}$	$\frac{3}{4}$
Dozen in box.	6	6
Wt. dozen, lbs.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Per dozen	\$1.65	1.85

SWIVEL ROUND EYE



Malleable iron; steel spring; cadmium plated.

Nos.	222- $\frac{5}{8}$	222- $\frac{3}{4}$
Eye, in.	$\frac{5}{8}$	$\frac{3}{4}$
Dozen in box.	3	3
Wt. dozen, lbs.	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Per dozen	\$1.60	1.75

CLEVELAND, ROUND EYE



Malleable iron; steel spring; cadmium plated.

Nos.	202- $\frac{1}{2}$	202- $\frac{3}{4}$	202- $\frac{5}{8}$
Inches	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{5}{8}$
Wt. per gross, lbs.	10	11	12
Per dozen	\$0.85	.90	1.00

SNAPS

SURE-FAST, LOOP EYE



Malleable iron; lock tongue; steel spring; cadmium plated.

No. 290— $\frac{7}{8}$ in. loop; wt. per dozen	
1 lb.	\$0.85
Six dozen in a box.	

RELIABLE, LOOP EYE



Malleable iron; steel spring; japanned.

Nos.	530- $\frac{5}{8}$	530- $\frac{3}{4}$	530-1
Loop, in.	$\frac{5}{8}$	$\frac{3}{4}$	1
Dozen in box.	6	6	6
Wt. dozen, lbs.	$\frac{1}{2}$	$\frac{3}{4}$	1
Per dozen	\$0.70	.70	.70

Nos.	530-1 $\frac{1}{4}$	530-1 $\frac{1}{2}$
Loop, in.	1 $\frac{1}{4}$	1 $\frac{1}{2}$
Dozen in box.	3	3
Wt. dozen, lbs.	1 $\frac{1}{2}$	2
Per dozen	\$1.05	1.15

BAG



Malleable iron; steel spring. Square loop; cadmium plated.

No. 340— $\frac{1}{2}$ in. loop; weight per gross 2 $\frac{1}{2}$ lbs.	\$0.35
One gross in a box.	



Malleable iron; steel spring; round eye; cadmium plated.

No. 341— $\frac{3}{8}$ in. eye; wt. per gross 2 $\frac{3}{4}$ lbs.	\$0.45
One gross in a box.	

SWIVEL BAG



Malleable iron; steel spring; round eye; nickel plated.

No. 534— $\frac{3}{8}$ in. eye; wt. per gross 5 $\frac{1}{4}$ lbs.	\$0.90
One gross in a box.	

SWIVEL DECOY DUCK



Malleable iron; steel spring; round eye; nickel plated.

No. 334— $\frac{3}{8}$ in. eye; wt. per gross 2 $\frac{3}{4}$ lbs.	\$0.90
One gross in a box.	

SNAPS

BULLDOG CHAIN



Heavy, malleable iron; double-end; cadmium plated.

No. 855— $5\frac{1}{4}$ in. long over all; wt. per dozen 4 $\frac{1}{2}$ lbs.	\$3.00
One dozen in a box.	

TRIGGER



Malleable iron; steel spring; cadmium plated.

No. 2001—1 in. loop; wt. per dozen 1 $\frac{1}{2}$ lbs.	\$1.25
Six dozen in a box.	

BUCKLES HARNESS



Barrel Roller

Malleable iron; japanned.

Nos.	50C	50E	50G
Size, in.	$\frac{3}{4}$	1	1 $\frac{1}{4}$
Gross in box.	1	1	$\frac{1}{2}$
Wt. gross, lbs.	4	6 $\frac{1}{4}$	10
Per gross	\$3.20	4.00	5.00

SKATE



With Roller

Malleable iron cadmium plated.

Nos.	40A	40B	40C	40E
Size, in.	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
Gross in box.	1	1	1	$\frac{1}{2}$
Wt. gross, lbs.	2	3	4	5 $\frac{1}{2}$
Per gross	\$3.15	3.30	3.60	4.20

SHOE



Imitation roller, malleable iron; cadmium plated.

Nos.	414C	414E
Size, in.	$\frac{3}{4}$	1
Gross in box.	1	$\frac{1}{2}$
Wt. gross, lbs.	3 $\frac{1}{4}$	5
Per gross	\$3.30	5.00

BULL RINGS



Polished copper. Complete with key; $\frac{1}{8}$ in. wire.

Nos.	21	22
Diameter, in.	2 $\frac{1}{2}$	3
Wt. per dozen, lbs.	2	2 $\frac{1}{4}$
Per dozen	\$3.60	4.20
Ten in a box.		

PORTLAND DESIGN

CYLINDER FRONT DOOR LOCK SETS



Wrought Bronze Trim

No. 702-842 Set consists of:
 Lock—No. 1343, see page 270.
 Knobs—Two No. 1419½PW, 2¼ in., seamless; ⅝x⅝ in. threaded swivel spindle.
 Escutcheons—Outside No. 70229, 10x2¼ in., inside No. 70231, 7x2¼ in., with thumb knob.

Per set
 No. R702-842—Antique copper ...\$11.00
 No. EA702-842—Dull brass 11.00

Weight per set 4½ pounds.
 One set in a box, with screws.

CYLINDER VESTIBULE DOOR LOCK SETS



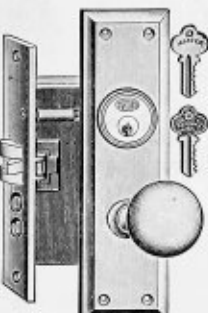
Wrought Bronze Trim

No. 702-742 Set consists of:
 Lock—No. 1323, see page 270.
 Knobs—Two No. 1419½PW, 2¼ in., seamless; ⅝x⅝ in. threaded swivel spindle.
 Escutcheons—Outside No. 70230, 9x2½ in., inside No. 70231, 7x2¼ in.

Per set
 No. R702-742—Antique copper ...\$10.00
 No. EA702-742—Dull brass 10.00

Weight per set 3½ pounds.
 One set in a box, with screws.

CYLINDER OFFICE DOOR LOCK SETS



Wrought Brass Trim

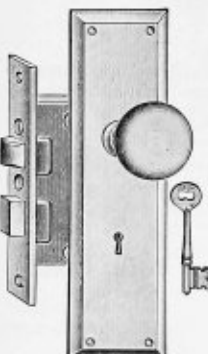
No. 702-526 Set consists of:
 Lock—No. 567, see page 270.
 Knobs—Two No. 1419½PW, 2¼ in., seamless; ⅝x⅝ in. threaded swivel spindle.
 Escutcheons—Two No. 70230, 9x2½ in.

Per set
 No. EA702-526—Dull brass\$11.55

Weight per set 4½ pounds.
 One set in a box, with screws.

Note—When ordering state hand and thickness of door.

BIT KEY FRONT DOOR LOCK SETS



Wrought Bronze Trim

No. 702-822 Set consists of:
 Lock—No. 1251, see page 270.
 Knobs—Two No. 1419½, 2¼ in. seamless; ⅝x⅝ in. swivel spindle.
 Escutcheons—Outside No. 70229, 10x2¼ in., inside No. 70231, 7x2¼ in.

Per set
 No. R702-822—Antique copper\$6.00
 No. EA702-822—Dull brass 6.00

Wrought Steel Trim

No. 602-806 Set consists of:
 Lock—No. 3251, see page 270.
 Knobs—Two No. 01419½, 2¼ in., seamless; ⅝x⅝ in. swivel spindle.
 Escutcheons—Outside No. 60229, 10x2¼ in., inside No. 60231, 7x2¼ in.

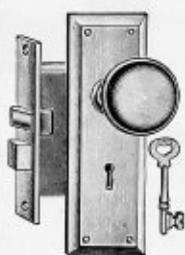
Per set
 No. R602-806—Antique copper\$3.50
 No. EA602-806—Dull brass 3.50
 Weight per set 3½ pounds.
 One set in a box, with screws.

INSIDE DOOR LOCK SETS



Wrought Bronze Trim

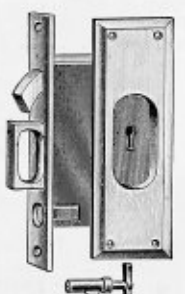
No. 702-156 Set consists of:
 Lock—No. 785, see page 270.
 Knobs—Two No. 1419½, 2¼ in., seamless; ⅝ in. straight spindle.
 Escutcheons—Two No. 70231, 7x2¼ in.
 Per set
 No. R702-156—Antique copper\$2.80
 No. EA702-156—Dull brass 2.80
 Weight per set 2¼ pounds.
 One set in a box, with screws.



Wrought Steel Trim

No. 602-048½ Set consists of:
 Lock—No. 13271, see page 270.
 Knobs—Two No. 1523½, 2¼ in., two-piece; ⅝ in. straight spindle.
 Escutcheons—Two No. 60231, 7x2¼ in.
 Per dozen sets
 No. R602-048½—Antique copper\$12.50
 No. EA602-048½—Dull brass 12.50
 Weight per dozen sets 24 pounds.
 One set in a box, with screws.

SLIDING DOOR LOCK SETS

Wrought Steel Trim
For Single Doors

No. 602-306 Set consists of:
 Lock—No. 13002, 5¼x4½ in. japanned iron case, 2¾ in. backset, 7¾x1½ in. wrought steel front, cast bronze bolt and pull, one bronze key.
 Escutcheons—Two No. 60234, 7x2¼ in.

Per set
 No. R602-306—Antique copper\$3.80
 No. EA602-306—Dull brass 3.80
 Weight per set 2¼ pounds.

For Double Doors

No. 602-308 Set consists of:
 Lock—No. 13100, for double doors, otherwise same as No. 13092 described above.
 Escutcheons—Four No. 60234, 7x2¼ in.
 Per set
 No. R602-308—Antique copper\$5.80
 No. EA602-308—Dull brass 5.80
 Weight per set 4½ pounds.
 One set in a box, with screws.

BATH ROOM DOOR LOCK SETS

Half trim, for inside of door only. Any inside knob and escutcheon may be used on outside of door.



Wrought Bronze Trim

No. E702-436 Set consists of:
 Lock—No. 159, 3¾x3¼x1½ in. japanned iron case, 2¾ in. backset, 2¾ in. spacing, 5½x1½ in. cast bronze front, cast bronze bolts, reversible; dead bolt operated by thumb knob from one side only.
 Knob—One No. 1419½, 2¼ in., seamless; ⅝ in. straight spindle.
 Escutcheon—One No. 70231, 7x2¼ in., with thumb knob.

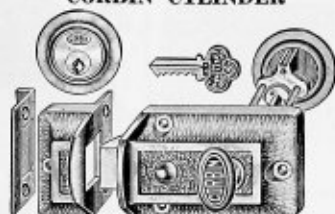
Per set
 No. E702-436—Nickel plated\$2.80

Wrought Steel Trim

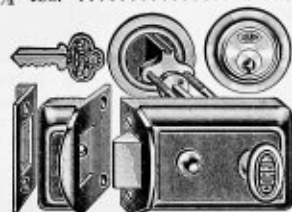
No. E602-072½ Set consists of:
 Lock—No. 13159, 3¾x3¼x1½ in. japanned iron case, 2¾ in. backset, 2¾ in. spacing, 5¼x1½ in. wrought steel front, cast iron bolts, reversible; dead bolt operated by thumb knob from one side only.
 Knob—One 1523½, 2¼ in., two-piece; ⅝ in. straight spindle.
 Escutcheon—One No. 60231, 7x2¼ in., with thumb knob.

Per set
 No. E602-072½—Nickel plated\$1.25
 Weight per set 2 pounds.
 One set in a box, with screws.

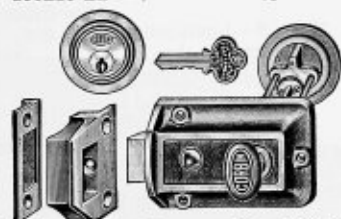
RIM NIGHT LATCHES **CORBIN CYLINDER**



With Rim and Reverse Bevel Strikes
Case—Cast bronze, 2½x3 in.
Backset—2½ in.
Cylinder—Bronze, 5 pin tumblers.
Bolt—Bronze.
Turn Knob—Wrought bronze.
Keys—Three, nickel bronze, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Stop deadlocks against key or holds bolt retracted.
Each
No. B256—Polished bronze; wt. each 1½ lbs.\$4.00



With Rim and Reverse Bevel Strikes
Case—Iron, 2½x3 in.
Backset—2½ in.
Cylinder—Bronze, 5 pin tumblers.
Bolt—Bronze.
Turn Knob—Wrought bronze.
Keys—Three, nickel silver, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Stop deadlocks against key or holds bolt retracted.
Each
No. HBW474 — Wrinkled statuary bronze finish; wt. each 1½ lbs..\$2.25

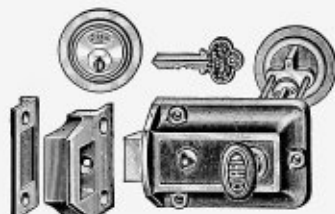


With Rim and Reverse Bevel Strikes
Case—Iron 2½x3 in.
Backset—2½ in.
Cylinder—Bronze, 5 pin tumblers.
Bolt—Bronze.
Turn Knob—Wrought bronze.
Keys—Three, nickel silver, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Stop deadlocks against key or holds bolt retracted.
Each
No. DW356—Wrinkled black finish; wt. each 1½ lbs.\$2.10
All above, one in a box, with screws.

RIM NIGHT LATCHES **CORBIN CYLINDER**

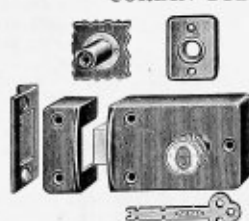


With Rim and Reverse Bevel Strikes
Case—Iron, 2½x3 in.
Backset—2 in.
Cylinder—Bronze, 5 pin tumblers.
Bolt—Bronze.
Turn Knob—Wrought bronze.
Keys—Three, nickel silver, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Stop deadlocks against key or holds bolt retracted.
Each
No. DW036614—Wrinkled black finish; wt. each 1 lb.\$1.63



With Rim and Reverse Bevel Strikes
Case—Iron, 2½x3 in.
Backset—2½ in.
Cylinder—Bronze, 5 pin tumblers.
Bolt—Iron, bronze plated.
Turn Knob—Wrought bronze.
Keys—Three, nickel silver, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Stop deadlocks against key or holds bolt retracted.
Each
No. DW3R6—Wrinkled black finish; wt. each 1½ lbs.\$1.75

CORBIN TUBULAR



With Rim and Reverse Bevel Strikes
Case—Iron, 2x3 in.
Backset—2½ in.
Bolt—Iron, bronze plated.
Turn Knob—Bronze plated.
Keys—Two, nickel plated, 33 changes.
For Doors—Up to 1½ in. thick.
Operated—By key from outside and knob inside. Bolt may be held back by a turn of the knob.
Each
No. DW353—Japanned finish; wt. each ¾ lb.\$0.95
All above, one in a box, with screws.

RIM DEAD LATCHES **YALE CYLINDER**



Automatic Type
Case—Iron, 2½x3½x1½ in.
Backset—2½ in.
Cylinder—Brass, 5 pin tumblers.
Bolt—Brass.
Turn Knob—Brass, buffed.
Keys—Three, nickel bronze, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Bolt may be held back by stop. Bolt has a ½ in. projection, but when door is closed, it is automatically thrown forward an additional ½ in. into deadlocked position.
Each
No. 44—Wrinkled brass finish; wt. each 1½ lbs.\$3.00



With Rim and Flat Strikes
Case—Iron, 2½x3½x1½ in.
Backset—2½ in.
Cylinder—Brass, 5 pin tumblers.
Bolt—Brass.
Turn Knob—Brass, buffed.
Keys—Three, nickel bronze, changes unlimited.
For Doors—1 in. to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Bolt may be held back by stop and also deadlocked against end pressure by key or knob. When deadlocked, bolt has an additional throw of ¼ in.
Each
No. 42—Wrinkled brass finish; wt. each 1½ lbs.\$2.15

RIM SPRING LATCHES **YALE CYLINDER**



With Rim and Flat Strikes
Case—Iron, 2½x3½x1½ in.
Backset—2½ in.
Cylinder—Brass, 5 pin tumblers.
Bolt—Brass.
Turn Knob—Brass buffed.
Keys—Three, nickel bronze, changes unlimited.
For Doors—1 to 2½ in. thick, right or left hand.
Operated—By key from outside and knob inside. Bolt may be held back by stop.
Each
No. 040—Wrinkled black finish; wt. each 1½ lbs.\$1.95
All above, one in a box, with screws.

RIM DEAD LOCKS YALE CYLINDER



Rotary Bolt Type

Case—Cast bronze, $2\frac{3}{4} \times 3\frac{3}{8} \times 1\frac{1}{2}$ in.

Backset—2 $\frac{3}{8}$ in.

Cylinder—Brass, 5 pin tumblers.

Bolt— $\frac{3}{4}$ in. round steel, case hardened.

Keys—Three, nickel bronze, changes unlimited.

For Doors—1 $\frac{1}{4}$ to 3 $\frac{1}{4}$ in. thick, right or left hand.

One Cylinder and Turn Knob

Operated by key from outside and knob inside.

Each
No. 192—Sanded bronze, high parts polished\$5.00

One Cylinder

Operated by key from one side only.

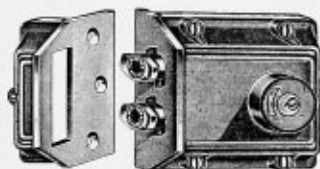
Each
No. 192K—Sanded bronze, high parts polished\$5.00

Two Cylinders

Operated by key from either side.

Each
No. 192 $\frac{1}{2}$ —Sanded bronze, high parts polished\$7.20
Weight each 3 pounds.

KEIL CYLINDER



Double Rotary Bolt Type

Backset—2 $\frac{3}{8}$ in.

Bolts—Two, bronze, with hardened steel cores.

Cylinders—Bronze, 5 pin tumblers.

Keys—Nickel silver, changes unlimited.

For Doors—1 $\frac{1}{4}$ to 2 $\frac{1}{2}$ in. thick, right or left hand.

Two Cylinders

Operated by key from either side.

Case—Bronze, $3\frac{3}{8} \times 4 \times 1\frac{1}{4}$ in.

Keys—Three, nickel silver, changes unlimited.

Each
No. B51001—Polished bronze; wt. each 3 $\frac{1}{4}$ lbs.\$9.00

One Cylinder and Turn Knob

Operated by key from outside and knob inside.

Case—Iron, $3\frac{3}{8} \times 4 \times 1\frac{1}{4}$ in.

Keys—Two, nickel silver, 1000 changes.

Each

No. X51000—Sprayed brass finish; wt. each 3 lbs.\$4.50

All above, one in a box, with screws.

RIM DEAD LOCKS FLAT KEY



Case—Iron,

$4\frac{1}{4} \times 2\frac{5}{8}$

$\times \frac{7}{8}$ in.

Backset—

1 $\frac{1}{2}$ in.

Bolt—

Bronze.

Escutcheon—

One.

Tumblers—Four.

Keys—Three, nickel silver, 1000 changes.

For Doors—Right or left hand.

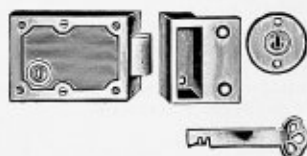
Operated—By key from either side.

Each

No. 7 $\frac{1}{2}$ —Japanned finish; wt. each

2 lbs.\$5.13

One in a box, with screws.



Case—Iron, $2\frac{1}{4} \times 3 \times \frac{3}{4}$ in.

Backset—2 $\frac{1}{4}$ in.

Bolt—Bronze.

Escutcheon—One.

Tumblers—Three.

Keys—Two, nickel silver, 100 changes.

For Doors—Right or left hand.

Operated—By key from either side.

Each

No. 13 $\frac{1}{2}$ —Japanned finish; wt. each

1 lb.\$2.40

One in a box, with screws.

RIM KNOB LOCKS



Horizontal, with Stop

Description—4 $\frac{1}{2}$ in. japanned iron case, 3 $\frac{1}{2}$ in. backset, easy-spring latch bolt, reversible, 1 tumbler, 1 nickel plated steel key, 36 changes.

Per dozen

No. 800 $\frac{1}{2}$ —Iron bolts\$21.00

No. 803 $\frac{1}{2}$ —Brass bolts22.80

Weight per dozen 16 pounds.

One-half dozen in a box.



Horizontal, with Stop

Description—3 $\frac{3}{4}$ x 5 in. case, backset to hub 4 in., backset to keyhole 1 $\frac{1}{4}$ in. iron bolts, reversible; 1 tumbler, 1 brass plated key, 12 changes.

Per dozen

No. 2250 $\frac{1}{2}$ —Japanned; wt. per doz.

16 lbs.\$10.00

One-half dozen in a box.

RIM KNOB LOCKS



Horizontal, with Stop

Description—3 $\frac{3}{4}$ x 4 $\frac{1}{4}$ in. japanned iron case, backset to hub 3 $\frac{1}{4}$ in., backset to keyhole 1 $\frac{1}{8}$ in.; iron bolts, reversible; 1 tumbler, 1 nickel plated iron key, 6 changes.

Lock Only

Per dozen

No. 523 $\frac{1}{4}$ —Japanned; wt. per dozen

15 lbs.\$5.60

One-half dozen in a box, with screws.

RIM KNOB LOCK SETS

No. 3333 Set consists of:

Lock—No. 523 $\frac{1}{4}$ as described above.

Knobs—Two No. J1523 $\frac{1}{2}$, 2 $\frac{1}{4}$ in., wrought steel, one 2 in. wrought steel rose; $\frac{1}{4}$ in. straight spindle.

Key Plate—One, japanned iron.

Per dozen sets

No. 3333—Japanned; wt. per dozen

sets 25 lbs.\$8.70

One set in a box, with screws.



Horizontal, with Stop

No. 2250 $\frac{1}{2}$ S Set consists of:

Lock—No. 2250 $\frac{1}{2}$, 3 $\frac{3}{4}$ x 5 in. japanned iron case, backset to hub 4 in., backset to key hole 1 $\frac{1}{4}$ in., iron bolts, reversible; 1 tumbler, 1 brass plated key, 12 changes.

Knobs—Two, 2 $\frac{1}{4}$ in., wrought steel; $\frac{1}{4}$ in. straight spindle.

Key Plate—One, japanned iron.

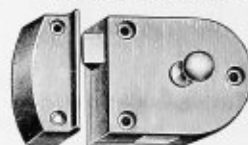
Per dozen sets

No. 2250 $\frac{1}{2}$ S—Japanned; wt. per

dozen sets 25 lbs.\$13.50

One set in a box.

SECRET GATE LATCHES



Reversible

Latch bolt operates by pressure of finger on the under side, knob does not operate,

but is always rigid.

Cast Iron

Size 2x2 $\frac{1}{2}$ in.

Per dozen

No. J01413—Japanned\$ 8.50

No. R01413—Antique copper 10.00

No. EA01413—Dull brass 10.00

Cast Bronze

Size 2x2 $\frac{1}{2}$ in.

Per dozen

No. B1413—Polished bronze\$15.60

Weight per dozen 7 $\frac{1}{4}$ pounds.

One-half dozen in a box, with screws.

CHEST LOCKS

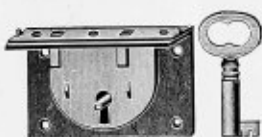
Steel



Single link, back spring, 1 malleable iron key, all keys alike.

- Per dozen
- No. 2— $\frac{1}{2}$ x $1\frac{1}{2}$ in., $\frac{3}{8}$ in. from seldvege to key pin; wt. per dozen $\frac{1}{2}$ lb.\$2.40
- No. 4— $1\frac{1}{2}$ x2 in., $\frac{1}{2}$ in. from seldvege to key pin; wt. per dozen $\frac{3}{4}$ lb. 2.64
- No. 6—1 ward; $1\frac{3}{4}$ x $2\frac{1}{2}$ in., $\frac{5}{8}$ in. from seldvege to key pin; wt. per dozen $1\frac{1}{4}$ lbs. 3.92
- No. 8—1 ward; $1\frac{1}{2}$ x3 in., $\frac{7}{8}$ in. from seldvege to key pin; wt. per dozen $1\frac{3}{4}$ lbs. 3.50
- No. 10—1 ward; $2\frac{1}{2}$ x $3\frac{1}{4}$ in., $\frac{7}{8}$ in. from seldvege to key pin; wt. per dozen $2\frac{1}{2}$ lbs. 4.22

One dozen in a box.



Double link, back spring, 1 malleable iron key.

- Per dozen
- No. 30— $1\frac{1}{2}$ x $1\frac{1}{2}$ in., $\frac{1}{2}$ in. from seldvege to key pin; wt. per dozen $\frac{1}{2}$ lb.\$6.76
- No. 32—1 ward; $1\frac{1}{4}$ x2 in., $\frac{3}{4}$ in. from seldvege to key pin; wt. per dozen 1 lb. 6.28
- No. 34—1 ward, 6 changes; $1\frac{1}{2}$ x $2\frac{1}{2}$ in., $\frac{7}{8}$ in. from seldvege to key pin; wt. per dozen $1\frac{1}{2}$ lbs. 7.34
- No. 36—1 tumbler, 1 ward, 6 changes; $1\frac{3}{4}$ x3 in., 1 in. from seldvege to key pin; wt. per dozen $2\frac{1}{2}$ lbs. 8.18

Brass

- Per dozen
- No. 030— $1\frac{1}{2}$ x $1\frac{1}{2}$ in., $\frac{1}{2}$ in. from seldvege to key pin; wt. per dozen $\frac{1}{2}$ lb.\$7.04
- No. 032—1 ward; $1\frac{1}{4}$ x2 in., $\frac{3}{4}$ in. from seldvege to key pin; wt. per dozen 1 lb. 7.68

One dozen in a box.



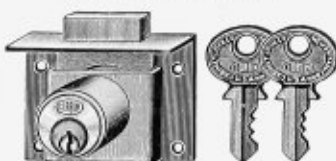
Steel, Brass Escutcheon

Self-locking double link square seldvege, solid box, screwed, 4 hook tumblers, secret wards, 1 double bitted key, 12 changes.

- Per dozen
- No. 80— $1\frac{3}{4}$ x $2\frac{1}{2}$ in., $\frac{7}{8}$ in. from seldvege to key pin; wt. per dozen $2\frac{1}{2}$ lbs.\$16.64
- No. 88— $2\frac{1}{2}$ x3 in., 1 in. from seldvege to key pin; wt. per dozen $3\frac{1}{2}$ lbs. 17.52
- No. 82— $2\frac{1}{4}$ x4 in., $1\frac{1}{8}$ in. from seldvege to key pin; wt. per dozen 6 lbs. 20.92

Nos. 80 and 88, one dozen; No. 82, one-half dozen in a box.

DRAWER LOCKS



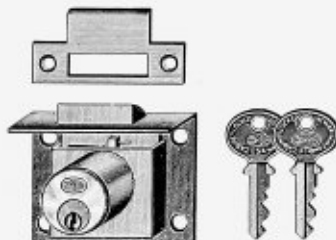
Brass

Square seldvege, broad heavy bolt, pin tumbler cylinder, 2 nickel silver keys, changes unlimited.

For $\frac{7}{8}$ in. wood. Furnished for 1, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$ and $1\frac{7}{8}$ in. wood when so ordered at additional cost.

- Per dozen
- No. 0665— $1\frac{1}{2}$ x2 in., $\frac{3}{4}$ in. from seldvege to center of cylinder, $\frac{7}{8}$ in. diameter cylinder; wt. per dozen $2\frac{3}{4}$ lbs.\$28.80
- No. 0666— $1\frac{5}{8}$ x2 in., $\frac{7}{8}$ in. from seldvege to center of cylinder, $\frac{7}{8}$ in. diameter cylinder; wt. per dozen $2\frac{7}{8}$ lbs. 28.80

One in a box.

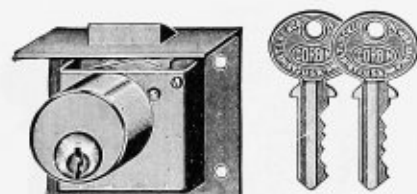


Brass; Self-locking

Square seldvege, broad heavy bolt, brass strike, pin tumbler cylinder, 2 nickel silver keys, changes unlimited. For $\frac{7}{8}$ in. wood. Furnished for $\frac{7}{8}$ and $\frac{3}{4}$ in. wood when so ordered at additional cost.

- Per dozen
- No. 0665 $\frac{1}{2}$ — $1\frac{1}{2}$ x2 in., $\frac{3}{4}$ in. from seldvege to center of cylinder, $\frac{7}{8}$ in. diameter cylinder; wt. per dozen 3 lbs.\$28.80
- No. 0666 $\frac{1}{2}$ — $1\frac{5}{8}$ x2 in., $\frac{7}{8}$ in. from seldvege to center of cylinder, $\frac{7}{8}$ in. diameter cylinder; wt. per dozen 3 lbs. 28.80

One in a box.



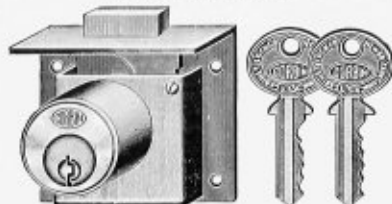
Brass; Self-locking

Square seldvege, broad heavy latch bolt, brass strike, pin tumbler cylinder, 2 nickel silver keys, changes unlimited. For $\frac{3}{4}$ or $\frac{7}{8}$ in. wood. Furnished for 1, $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$ or $1\frac{7}{8}$ in. wood when so ordered at additional cost.

- Per dozen
- No. 0686 $\frac{1}{2}$ — $2\frac{1}{4}$ x2 in., 1 in. from seldvege to center of cylinder, $1\frac{1}{4}$ in. diameter cylinder; wt. per dozen $5\frac{1}{4}$ lbs.\$58.10

Note—Pin tumbler locks can be furnished alike or master keyed, at additional cost.

DRAWER LOCKS



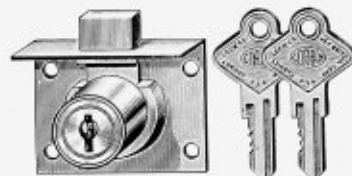
Brass

Square seldvege, broad heavy bolt, pin tumbler cylinder, 2 nickel silver keys, changes unlimited.

For $\frac{7}{8}$ in. or $\frac{3}{4}$ in. wood. Furnished for 1, $1\frac{1}{4}$, $1\frac{1}{2}$ or $1\frac{3}{4}$ in. wood when so ordered at additional cost.

- Per dozen
- No. 0686— $2\frac{1}{4}$ x2 in., 1 in. from seldvege to center of cylinder, $1\frac{1}{4}$ in. diameter cylinder; wt. per dozen $4\frac{1}{4}$ lbs.\$30.96

One in a box.



Brass

Square seldvege heavy brass bolt with $\frac{1}{2}$ in. throw, cast cylinder, 5 disc tumblers, 2 nickel silver keys, 200 changes. For $\frac{7}{8}$ in. wood.

- Per dozen
- No. 02065— $1\frac{1}{2}$ x2 in., $\frac{3}{4}$ in. from seldvege to center of cylinder, $\frac{7}{8}$ in. diameter of cylinder; wt. per dozen $1\frac{1}{2}$ lbs.\$14.40

One dozen in a box.

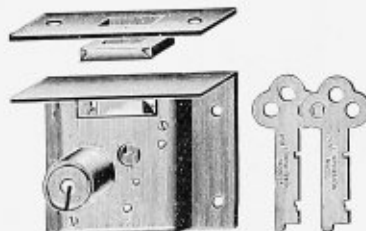


Steel Plate, Brass Plated

Brass plated steel bolt with $\frac{1}{2}$ in. throw, cast cylinder, 5 disc tumblers, 2 nickel silver keys, 200 changes. For $\frac{7}{8}$ in. wood.

- Per dozen
- No. 02066— $1\frac{1}{2}$ x2 in., $\frac{3}{4}$ in. from seldvege to center of cylinder; wt. per dozen $3\frac{1}{4}$ lbs.\$14.40

One dozen in a box.



Bronze; Self-locking

Square seldvege, cast bronze square box and cylinder, screwed, cast bronze latch bolt and strike, 3 secure levers, 2 nickel plated flat steel keys, 12 changes. For $\frac{7}{8}$ in. wood.

- Per dozen
- No. 0681— $1\frac{1}{2}$ x $2\frac{1}{4}$ in., $\frac{7}{8}$ in. from seldvege to center of cylinder; wt. per dozen $3\frac{3}{4}$ lbs.\$30.54

One dozen in a box.

CUPBOARD LOCKS



Brass

Square selvedge, solid box, screwed, secure levers, 1 steel key.

Furnished right or left hand.

Per dozen

No. 0260—1 lever, 4 changes; 2x $\frac{3}{4}$ in., $\frac{3}{4}$ in. from selvedge to key pin; wt. per dozen $\frac{3}{4}$ lb.\$13.96

No. 0262—2 levers, 12 changes; 2 $\frac{1}{2}$ x 1 $\frac{1}{2}$ in., $\frac{5}{8}$ in. from selvedge to key pin; wt. per dozen 1 $\frac{1}{2}$ lbs. 10.42

No. 0270—1 lever, 4 changes; 2 $\frac{1}{2}$ x 1 $\frac{1}{2}$ in., $\frac{3}{4}$ in. front selvedge to key pin; wt. per dozen 1 $\frac{1}{2}$ lbs. 9.62

No. 0280—2 levers, 12 changes; 3x 1 $\frac{1}{2}$ in., $\frac{7}{8}$ in. from selvedge to key pin; wt. per dozen 2 $\frac{1}{4}$ lbs. 13.96

One dozen in a box.

MORTISE



Broad bolt, 1 secure lever, 1 tumbler, 1 malleable iron key, all keys alike.

Steel; Brass Selvedge

Per dozen
No. 301—3 $\frac{1}{4}$ x 1 in., $\frac{1}{2}$ in. from selvedge to key pin; wt. per doz. 2 lbs.\$13.96

No. 302—3 $\frac{1}{4}$ x 1 $\frac{1}{4}$ in., $\frac{3}{4}$ in. from selvedge to key pin; wt. per dozen 2 $\frac{1}{2}$ lbs. 15.72

Steel

Per dozen
No. 303—3 $\frac{1}{4}$ x 1 $\frac{1}{2}$ in., 1 in. from selvedge to key pin; wt. per dozen 2 $\frac{1}{2}$ lbs.\$17.46

One dozen in a box.



Steel; Brass Selvedge

Solid square box, screwed, heavy bolt, double key hole, 2 secure levers, 1 steel key, 12 changes. Furnished right or left hand.

Per dozen

No. 316—3x1 $\frac{1}{2}$ in., $\frac{7}{8}$ in. from selvedge to key pin; wt. per doz. 1 $\frac{1}{2}$ lbs.\$14.84

One dozen in a box.

CUPBOARD LOCKS

MORTISE



Steel; Brass Selvedge

Broad heavy bolt, double key hole, 1 tumbler, 1 iron key, all keys alike. Furnished right or left hand.

Cut shows right hand

Per dozen

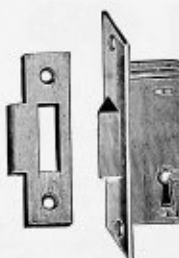
No. 310—2 $\frac{5}{8}$ x 1 $\frac{1}{8}$ in., $\frac{5}{8}$ in. from selvedge to key pin; wt. per dozen 1 $\frac{1}{4}$ lbs.\$3.30

No. 310 $\frac{1}{2}$ —2 $\frac{5}{8}$ x 1 $\frac{1}{4}$ in., $\frac{3}{4}$ in. from selvedge to key pin; wt. per doz. 1 $\frac{3}{8}$ lbs. 3.30

No. 311—2 $\frac{5}{8}$ x 1 $\frac{3}{8}$ in., $\frac{7}{8}$ in. from selvedge to key pin; wt. per doz. 1 $\frac{3}{8}$ lbs. 3.46

No. 312—2 $\frac{5}{8}$ x 1 $\frac{1}{2}$ in., 1 in. from selvedge to key pin; wt. per doz. 1 $\frac{3}{8}$ lbs. 4.10

One dozen in a box.



Steel; Brass Selvedge and Strike

Heavy broad cast brass spring bolt, double key hole, 4 wards, 1 steel key, 12 changes. Furnished right or left hand. Cut shows right hand.

Per dozen
No. 325—2 $\frac{5}{8}$ x 1 in., $\frac{1}{2}$ in. from selvedge to key pin; wt. per doz. 1 $\frac{1}{2}$ lbs.\$14.06

One dozen in a box.

WARDROBE LOCKS



Brass

Solid square box, screwed, broad heavy bolt shoots right and left, pin tumbler cylinder, 2 nickel silver keys, changes unlimited. For $\frac{3}{4}$ in. wood. Furnished for $\frac{3}{4}$, 1, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ and 1 $\frac{3}{4}$ in. wood at additional cost.

Per dozen

No. 0760—2 $\frac{1}{2}$ x 1 $\frac{1}{2}$ in., 1 $\frac{1}{8}$ in. diam. cylinder; wt. per dozen 5 $\frac{1}{4}$ lbs.\$61.22

One in a box.

WARDROBE LOCKS



Solid box, brass bolt shoots right and left, 2 secure levers, 2 nickel plated flat steel keys, 12 changes.

For $\frac{3}{4}$ in. wood.

Steel

Per dozen

No. 749—1 $\frac{1}{8}$ x $\frac{7}{8}$ in.; wt. per dozen 1 $\frac{1}{8}$ lbs.\$12.20

Brass

Per dozen

No. 0749—1 $\frac{1}{8}$ x $\frac{7}{8}$ in.; wt. per dozen 1 $\frac{1}{8}$ lbs.\$16.20
One dozen in a box.



Solid box, screwed, broad heavy brass bolt shoots right and left, 2 secure levers, 2 nickel plated flat steel keys, 12 changes. Cylinders three lengths in each dozen for $\frac{3}{4}$, 1 and 1 $\frac{1}{4}$ in. wood.

Furnished for 1 $\frac{1}{4}$, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$ and 1 $\frac{1}{2}$ in. wood at additional cost. Also keyed alike at no additional cost.

Steel

Per dozen

No. 750—2 $\frac{3}{4}$ x 1 $\frac{1}{4}$ in.; wt. per dozen 2 $\frac{3}{8}$ lbs.\$18.42

Brass

Per dozen

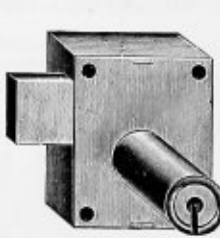
No. 0750—2 $\frac{3}{4}$ x 1 $\frac{1}{4}$ in.; wt. per doz. 2 $\frac{1}{2}$ lbs.\$19.40

No. 0751—3x1 $\frac{1}{4}$ in.; wt. per dozen 3 lbs. 22.40

No. 0752—3 $\frac{1}{2}$ x 2 in.; wt. per dozen 3 $\frac{3}{8}$ lbs. 30.74

Nos. 750 and 0750, one dozen; Nos. 0751 and 0752, one-half dozen in a box.

LOCKER LOCKS



Square box, heavy brass bolt projecting $\frac{3}{4}$ in., for right or left hand, 5 secure levers, 2 nickel plated flat steel keys, 16,800 changes, all different in a dozen. For $\frac{3}{4}$ in. wood.

Furnished for 1, 1 $\frac{1}{4}$, 1 $\frac{1}{2}$ and 1 $\frac{3}{4}$ in. wood at no extra cost.

Steel

Per dozen

No. 755—2x1 $\frac{1}{2}$ in., $\frac{3}{4}$ in. from selvedge to center of cylinder; wt. per dozen 4 $\frac{1}{4}$ lbs.\$22.62

No. 755M—Master keyed 24.88

Brass

Per dozen

No. 0755—2x1 $\frac{1}{2}$ in., $\frac{3}{4}$ in. from selvedge to center of cylinder; wt. per dozen 4 $\frac{1}{4}$ lbs.\$25.46

No. 0755M—Master keyed 27.70
One-half dozen in a box.

WARDROBE LOCKS



Brass

Solid box, screwed, heavy brass bolt for either right or left hand, pin tumbler, cylinder, 2 nickel silver keys, changes unlimited. For 3/8 in. wood. Furnished for 1 and 1 1/2 in. wood at additional cost.

Per dozen
No. 0768—1 1/2 x 1 1/4 in., 7/8 in. diam. cylinder; wt. per doz. 3 1/2 lbs. \$28.80
One in a box, with screws.



Bolt shoots right and left. Double key hole, 1 tumbler, 1 steel key, all keys alike.
Nos. 700 and 0700 have two screw holes.

Brass

Per dozen
No. 0700—1 1/2 x 3/4 in.; wt. per dozen 3/4 lb. \$7.00

Steel

Per dozen
No. 700—1 1/2 x 3/4 in.; wt. per dozen 3/4 lb. \$5.26
No. 701B—2 x 1 in.; wt. per dozen 1 1/4 lbs. 1.94
No. 702B—2 1/2 x 1 1/4 in.; wt. per doz 1 1/2 lbs. 2.28
One dozen in a box.



Brass bolt shoots right and left, 2 secure levers, 1 iron key, 12 changes.

Steel

Per dozen
No. 718—1 1/2 x 3/4 in.; wt. per dozen 3/4 lb. \$13.96
No. 720—2 3/4 x 1 1/4 in.; wt. per dozen 1 1/2 lbs. 12.28
No. 722—Screwed; bronze key; 3x 1 1/4 in.; wt. per dozen 2 lbs. 14.40

Brass

Per dozen
No. 0718—1 1/2 x 3/4 in.; wt. per dozen 3/4 lb. \$15.72
No. 0720—Bronze key; 2 3/4 x 1 1/4 in.; wt. per dozen 1 1/2 lbs. 17.46
No. 0722—Screwed; bronze key; 3x 1 1/4 in.; wt. per dozen 2 lbs. 19.14

Steel

Solid square box, broad heavy bolt shoots right and left, 2 secure levers, 1 malleable iron key, 12 changes.
Per dozen
No. 712—3 1/2 x 2 in.; wt. per dozen 3 3/4 lbs. \$ 7.80
No. 723—Screwed; 3x 1 3/4 in.; wt. per dozen 2 1/2 lbs. 11.30

Steel, Coppered; Bronze Key

Solid square box, bolt shoots right and left, 1 bronze key, all keys alike.
Per dozen
No. 704 1/4—3x 1 3/4 in.; wt. per dozen 2 3/4 lbs. \$4.60
One dozen in a box.

SUB-TREASURY LOCKS



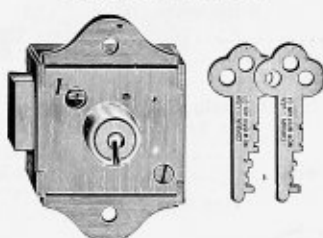
Brass

2 secure levers, 2 nickel plated flat steel keys, 12 changes. Cylinder projects 1/4 in.
Per dozen
No. 0359—1 1/2 x 1 1/4 in.; wt. per doz. 1 1/4 lbs. \$11.30
One dozen in a box.



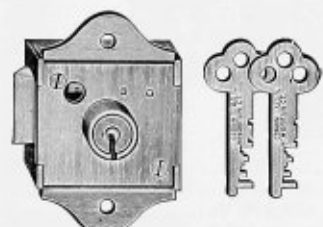
Brass; Self-Locking

2 nickel plated flat steel keys. Cylinder projects 1/4 in.
Per dozen
No. 0363—1 1/2 x 1 1/4 in., 3/8 in. from seldedge to center of cylinder; wt. per dozen 1 1/2 lbs. \$11.30
One dozen in a box.



Steel, Brass Plated

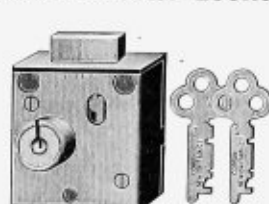
Heavy wrought box, screwed, broad heavy brass bolt with 1/2 in. throw, 3 secure levers, 2 nickel plated flat steel keys, 12 changes. For 3/8 or 1/2 in. wood.
Per dozen
No. 582X—1 1/2 x 1 1/2 in., 3/8 in. from seldedge to center of cylinder; wt. per doz. 3 1/2 lbs. \$16.16
One dozen in a box.



Steel, Brass Plated; Cast Brass Latch Bolt

Heavy wrought box, screwed, 3 secure levers, 2 nickel plated flat steel keys, 12 changes. For 3/8 or 1/2 in. wood.
Per dozen
No. 581X—1 1/2 x 1 1/2 in., 3/8 in. from seldedge to center of cylinder; wt. per dozen 3 1/2 lbs. \$16.16
One dozen in a box.

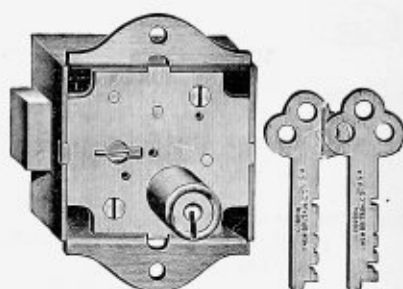
SUB-TREASURY LOCKS



Brass Plate

Steel cap, brass center and cylinder, screwed, thin bolt, 2 secure levers, 2 nickel plated flat steel keys, 12 changes. 1 1/2 x 1 1/2 in., 3/8 in. from seldedge to center of cylinder.

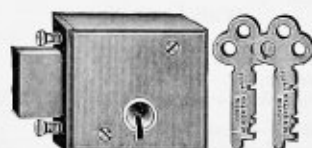
Per dozen
No. 0587B—Cylinder projects 3/8 in.; wt. per dozen 2 lbs. \$10.08
No. 0587C—Cylinder projects 1/2 in.; wt. per dozen 1 1/2 lbs. 10.08
One dozen in a box.



Steel, Brass Plated

Heavy wrought box, screwed, broad heavy brass bolt, 4 secure levers, 2 nickel plated flat steel keys, 12 changes. Nickel plated tube projects 1/8 in.
Per dozen
No. 355W—2 1/4 x 3 1/4 in., 1 1/8 in. from seldedge to center of cylinder; wt. per dozen 5 lbs. \$21.34
No. 356W—With latch bolt, otherwise same as No. 355W. 21.34
One-half dozen in a box.

WICKET LOCKS



Brass

Heavy wrought box, screwed, bolt projects 1/4 in. through seldedge when lock is unlocked, 2 secure levers, 2 nickel plated steel keys, 12 changes.
Per dozen
No. 0588L—1 1/2 x 1 1/2 in., 3/8 in. from seldedge to center of cylinder; wt. per dozen 2 lbs. \$17.00
One in a box, with screws.

PADLOCKS

CORBIN

Extruded Brass Case



Polished case, wrought brass shackle, 4 wards, 2 nickel plated steel keys, 36 changes.

Nos.	2875	2876
Case, in.	5/8	3/4
Diam. shackle, in.	1/2	5/8
Shackle clearance, in.	1/8	3/16
Wt. dozen, lbs.	3 3/4	4 1/4
Per dozen	\$7.42	10.42

One dozen in a box.

Extruded Brass Case



Polished case, wrought brass shackle, pin tumblers, 2 nickel silver keys, changes unlimited.

Without Chain

No. 2879—1 in. case, 1/2 in. diameter shackle, 1/2 in. shackle clearance; wt. per dozen 2 1/2 lbs.	Per dozen	\$18.50
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With Chain

No. 2879C—With 9 in. brass chain; wt. per dozen 2 1/2 lbs.	Per dozen	\$20.30
One in a box.		



Extruded Brass Case

Polished case, wrought brass shackle, pin tumblers, 2 nickel silver keys, changes unlimited.

Without Chain

No. 2880—1 1/2 in. case, 1/2 in. diam. shackle, 5/8 in. shackle clearance; wt. per dozen 4 lbs.	Per dozen	\$22.00
No. 2880 1/2—Master keyed, otherwise same as No. 2880.	28.60	

With Chain

No. 2880C—1 1/2 in. case, 1/2 in. diam. shackle, 5/8 in. shackle clearance; wt. per dozen 4 1/2 lbs.	Per dozen	\$23.80
No. 2880 1/2 C—Master keyed, otherwise same as No. 2880C.	30.40	
One in a box.		

PADLOCKS

CORBIN



Extruded Brass Case

Polished case, wrought brass shackle, pin tumblers, 2 nickel silver keys, changes unlimited.

Without Chain

Nos.	2881	2882
Case, in.	1 1/2	1 3/4
Diam. shackle, in.	1 1/2	1 3/4
Shackle clearance, in.	1 1/2	1 3/4
Wt. dozen, lbs.	5 1/2	8 3/4
Per dozen	\$25.80	28.80

Without Chain, Master Keyed

Nos.	2881 1/2	2882 1/2
Per dozen	\$32.40	35.40

With Chain

9 in. brass chain.

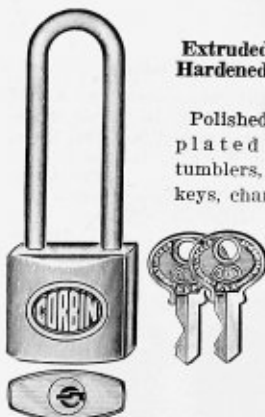
Nos.	2881C	2882C
Wt. dozen, lbs.	6	9 3/4
Per dozen	\$28.00	31.00

With Chain, Master Keyed

9 in. brass chain.

Nos.	2881 1/2 C	2882 1/2 C
Per dozen	\$34.60	37.60

One in a box.



Extruded Brass Case, Hardened Steel Shackle

Polished case, cadmium plated shackle, pin tumblers, 2 nickel silver keys, changes unlimited.

Nos.	2880AH	2881AH
Case, in.	1 1/2	1 3/4
Diam. shackle, in.	1 1/2	1 3/4
Shackle clearance, in.	2 1/2	2 1/2
Wt. dozen, lbs.	4 1/2	6 1/2
Per dozen	\$23.00	26.00

Nos.	2882AH	2883AH
Case, in.	1 3/4	2
Diam. shackle, in.	1 3/4	2 1/2
Shackle clearance, in.	2 1/2	2 1/2
Wt. dozen, lbs.	9 1/4	10 3/4
Per dozen	\$30.00	33.00

One in a box.

PADLOCKS

CORBIN



Extruded Brass Case

Polished case, wrought brass shackle, pin tumblers, 2 nickel silver keys, changes unlimited.

Without Chain

Nos.	2883	2884
Case, in.	2	2 1/2
Diam. shackle, in.	1 1/2	1 3/4
Shackle clearance, in.	1 1/2	1 3/4
Wt. dozen, lbs.	10 3/4	11 3/4
Per dozen	\$32.00	34.00

Nos.	2885	2886
Case, in.	2 1/2	3
Diam. shackle, in.	1 3/4	2
Shackle clearance, in.	1 3/4	2
Wt. dozen, lbs.	16 3/4	30 1/4
Per dozen	\$50.00	95.00

Without Chain, Master Keyed

Nos.	2883 1/2	2884 1/2
Case, in.	2	2 1/2
Diam. shackle, in.	1 1/2	1 3/4
Shackle clearance, in.	1 1/2	1 3/4
Wt. dozen, lbs.	10 3/4	11 3/4
Per dozen	\$38.60	40.60
Nos.	2885 1/2	2886 1/2
Case, in.	2 1/2	3
Diam. shackle, in.	1 3/4	2
Shackle clearance, in.	1 3/4	2
Wt. dozen, lbs.	16 3/4	30 1/4
Per dozen	\$56.60	101.60

With Chain

9 in. galvanized iron chain.

Nos.	2883C	2884C
Case, in.	2	2 1/2
Diam. shackle, in.	1 1/2	1 3/4
Shackle clearance, in.	1 1/2	1 3/4
Wt. dozen, lbs.	11 1/2	13
Per dozen	\$33.80	36.20

Nos.	2885C	2886C
Case, in.	2 1/2	3
Diam. shackle, in.	1 3/4	2
Shackle clearance, in.	1 3/4	2
Wt. dozen, lbs.	18 3/4	32 1/4
Per dozen	\$52.50	97.50

With Chain, Master Keyed

9 in. galvanized iron chain.

Nos.	2883 1/2 C	2884 1/2 C
Case, in.	2	2 1/2
Diam. shackle, in.	1 1/2	1 3/4
Shackle clearance, in.	1 1/2	1 3/4
Wt. dozen, lbs.	11 1/2	13
Per dozen	\$40.40	42.80

Nos.	2885 1/2 C	2886 1/2 C
Case, in.	2 1/2	3
Diam. shackle, in.	1 3/4	2
Shackle clearance, in.	1 3/4	2
Wt. dozen, lbs.	18 3/4	32 1/4
Per dozen	\$59.10	104.10

One in a box.

Note—All above padlocks can be furnished Keyed alike when so ordered.

**PADLOCKS
CORBIN**



Solid Bronze Case

Polished case, cadmium plated hardened steel shackle, pin tumblers, 2 nickel silver keys, changes unlimited.

Per dozen
No. 9945—1½ in. case, ¼ in. diameter shackle, 1½ in. shackle clearance; wt. per dozen 5½ lbs. \$15.00

One in a box, one dozen boxes in a carton.



Die-Cast Case

Cadmium plated hardened steel shackle, pin tumblers, 2 nickel silver keys, all keys different.

1½ in. case, ½ in. diameter shackle, ¾ in. shackle clearance.

Per dozen
No. 9965—Black enameled case...\$ 9.00
No. 9965CR—Chromium plated case 12.00

Weight per dozen 4¼ pounds.
One in a box, one dozen in display carton.



Cast Iron Case

Rustless finish iron case, cast bronze shackle, pin tumblers, 2 flat steel keys, 144 changes.

Per dozen
No. 990—2 in. case; wt. per dozen 8 lbs. \$12.00
One-half dozen in a box.

**PADLOCKS
CORBIN**



Cast Iron Case

Rustless finish iron case, cast bronze shackle, pin tumblers, 2 flat steel keys, 144 changes.

Per dozen
No. 9889—1½ in. case; wt. per dozen 4¼ lbs. \$10.00

One-half dozen in a box.



Cast Bronze Case

Polished case, buffed bronze shackle, 3 wards, 2 levers, 2 nickel plated malleable iron keys, 12 changes.

Nos. 02860½ 02865½
Case, in. 1¼ 2¼
Wt. dozen, lbs. 4¾ 6
Per dozen \$7.60 8.50

No. 02860½, one dozen; No. 02865½, one-half dozen in a box.



Cast Brass Case

Polished case, nickel plated steel spring swivel shackle, 2 nickel plated steel keys, 6 changes.

Per dozen
No. 02829—2½ in. case, ½ in. diameter shackle, ¾ in. shackle clearance; wt. per dozen 5¼ lbs. \$5.50
One-half dozen in a box.

**PADLOCKS
CORBIN**



Wrought Steel Case

Rustless finish case, nickel plated wrought steel shackle, secure levers, 2 nickel plated flat steel keys, 48 changes.

Nos. 9863 9865
Case, in. 1½ 2
Diameter shackle, in. ¼ ½
Shackle clearance, in. ½ ¾
Wt. dozen, lbs. 2½ 5
Per dozen \$6.00 9.00
One-half dozen in a box.



Cast Brass Case

Polished case, nickel plated steel spring swivel shackle, 2 nickel plated flat steel keys, 6 changes.

Nos. *09824 09827 09828
Case, in. ¾ 1¼ 1½
Diam. shackle, in. ¼ ½ ¾
Shackle clearance, in. ½ ¾ 1
Wt. dozen, lbs. ½ 1½ 2½
Per dozen \$2.80 3.00 3.50

*Brass plated shackle.

One dozen in a box.



Cast Brass Case

Polished case, wrought brass shackle, 2 corrugated steel keys, 12 changes. One master key with each dozen locks.

Per dozen
No. 02827—1½ in. case, ¼ in. diameter shackle, ½ in. shackle clearance; wt. per dozen 3 lbs. \$4.20
With Chain Per dozen
No. 02827C—6 in. brass chain; wt. per dozen 3½ lbs. \$5.00
One dozen in a box.



Wrought Steel Case

Nickel plated top and bottom caps, bodies finished in green, red and black, 2 nickel plated flat steel keys, 2 changes.

Per dozen
No. 9868—1½ in. case, ½ in. diameter shackle, ¾ in. shackle clearance; wt. per doz. 2½ lbs. \$13.80
One dozen, assorted colors, in a box.

PADLOCKS



YALE
Cast Bronze Case
 Wheel finish case, bronze shackle, lever tumblers, 2 nickel bronze keys.
Without Chain

Nos.	823	833	843	853
Case, in.	1 1/4	1 1/2	1 3/4	2
Tumblers	3	3	4	4
Changes	48	48	72	144
Wt. doz., lbs.	2 1/4	4 1/2	5 1/2	8 1/2
Per dozen	\$20.00	23.34	26.66	30.00

With Chain

Nos.	823 1/2	833 1/2	843 1/2	853 1/2
Case, in.	1 1/4	1 1/2	1 3/4	2
Wt. doz., lbs.	2 3/4	4 3/4	5 5/8	9 1/4
Per dozen	\$22.66	26.00	29.32	32.66

One in a box, one-half dozen in a carton.



Cast Iron Case
 Bower-barfed iron case, buffed bronze shackle, pin tumblers, 2 flat steel keys, 144 changes.
Without Chain

Nos.	803F	805F
Case, in.	1 1/4	2
Wt. dozen, lbs.	4	7 1/2
Per dozen	\$11.10	13.35

With Chain

No. 805 1/2 F—2 in. case, 8 in. steel chain; wt. per dozen 8 1/4 lbs.	\$15.00
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One-half dozen in a box.

**Cast Bronze Case**

Polished case, polished brass shackle, 6 secure levers, 2 steel keys, changes unlimited.
Without Chain

No. 1—2 1/4 in. case, 1 1/2 in. shackle opening; wt. per dozen 6 1/2 lbs.	\$13.35
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With Chain

No. 1 1/2—8 in. bronze chain; wt. per dozen 6 1/2 lbs.	\$16.00
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One-half dozen in a box.



Malleable Iron Case
 Bower-barfed iron case, cadmium plated steel discs, cadmium plated steel shackle, 2 steel keys, 6 changes.
Without Chain

Nos.	324	326
Case, in.	1 1/4	2 1/4
Diameter shackle, in.	3/8	3/4
Shackle clearance, in.	1 1/2	1 3/4
Wt. dozen, lbs.	5 1/2	9 3/4
Per dozen	\$4.44	6.66

One-half dozen in a box.

PADLOCKS

YALE



Die-Cast Case
 Mahogany lacquered case, cadmium plated steel shackle, secure, warded, 2 brass keys, 18 changes.
Without Chain

No. 240—1 1/2 in. case, 1/4 in. diameter shackle, 1 1/8 inch shackle clearance; weight per dozen 4 lbs.	\$3.34
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One-half dozen in a box.

**Wrought Steel Case**

Bower-barfed case, bower-barfed steel shackle, 4 lever tumblers, 2 corrugated steel keys, 144 changes.
Without Chain

No. 8454—2 in. case; wt. per dozen 5 1/4 lbs.	\$13.35
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One-half dozen in a box.

One-half dozen in a box.

**Wrought Steel Case**

Cadmium plated case, cadmium plated steel shackle, warded, 2 steel keys, 12 changes.
Without Chain

No. 164—1 1/4 in. case, 1/4 in. diameter shackle, 1 1/8 in. shackle clearance; wt. per dozen 3 lbs.	\$3.34
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One dozen in a box.

One dozen in a box.



Wrought Steel Case
 Cadmium plated case, cadmium plated steel shackle, warded, 2 flat steel keys, 3 changes.
Without Chain

No. 1805—1 1/4 in. case, 1/4 in. diameter shackle, 1 1/8 in. shackle clearance; wt. per dozen 1 1/2 lbs.	\$1.34
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One dozen in a box.

One dozen in a box.

PADLOCKS

WB

**Cast Bronze Case**

Polished case, polished bronze spring shackle, 2 bronze keys.
Without Key Hole Cover

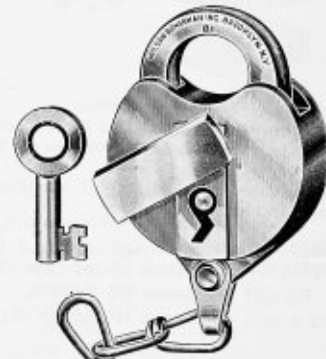
No. A—1 in., 12 changes; wt. per dozen 5 1/2 lbs.	\$ 5.70
No. 70—1 1/2 in., 12 changes; wt. per dozen 7 1/2 lbs.	6.45
No. 72—1 1/2 in., 1 tumbler, 48 changes; wt. per dozen 2 lbs.	11.00

With Key Hole Cover

No. 74—2 in., 1 tumbler, 96 changes, plain cover; wt. per dozen 4 1/4 lbs.	\$16.15
No. 78—2 1/4 in., 1 tumbler, 240 changes, spring cover; wt. per dozen 6 3/4 lbs.	17.65

One dozen in a box.

One dozen in a box.

**Cast Bronze Case; Galvanized Steel Chain**

Polished case, polished bronze spring shackle, 9 in. chain, 2 bronze keys.
Without Key Hole Cover

No. 72A—1 1/2 in., 1 tumbler, 48 changes; wt. per dozen 2 1/2 lbs.	\$12.75
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One dozen in a box.

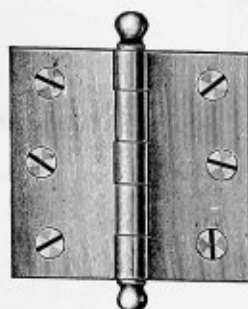
With Key Hole Cover

No. 75—2 in., 1 tumbler, 96 changes; plain cover; wt. per dozen 5 1/4 lbs.	\$18.50
No. 79—2 1/4 in., 1 tumbler, 240 changes, plain cover; wt. per dozen 8 lbs.	19.65
No. 85—2 1/2 in., 1 tumbler, 240 changes, spring cover; wt. per dozen 10 1/4 lbs.	21.00

One-half dozen in a box.

One-half dozen in a box.

LOOSE PIN BUTTS **STANLEY, REGULAR WEIGHT**



Wrought Steel, Polished and Plated
Non - rising pin, ball tips.
No. 241½-A—Polished bronze.
No. 241½-D2—Antique copper.
No. 241½-F—Dull brass.
No. 241½-C—Polished brass.

No. 241½-N—Nickel plated.
No. 241½-CM—Chromium plated.

Size, in.	Per pair					Wt. pair, lbs.
	D2 F	A C	N	CM		
2½ x 2½	\$1.00	1.08	1.16	1.66		½
3 x 3	1.12	1.22	1.34	1.94		¾
3½ x 3½	1.24	1.34	1.46	2.06		1 ¼
4 x 4	1.48	1.58	1.70	2.30		1 ¾
4½ x 4½	2.06	2.20	2.34	3.14		2 ¼
5 x 5	2.96	3.10	3.24	4.04		3

Wrought Steel, Planished and Plated

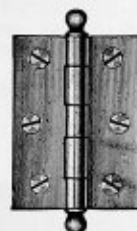
Non-rising pin, ball tips.

No. 241-A—Polished bronze.
No. 241-D2—Antique copper.
No. 241-F—Dull brass.
No. 241-C—Polished brass.
No. 241-SF4—Sanded brass, oxidized and relieved.
No. 241-H—Sanded dull black.
No. 241-N—Nickel plated.
No. 241-CM—Chromium plated.

Size, in.	Per pair					Wt. pair, lbs.
	D2 F	A C	SF4	N	CM	
2 x 2	\$0.31	0.36	0.38	0.44	0.97	¼
2½ x 2½	.31	.36	.39	.45	.97	½
3 x 3	.32	.37	.39	.47	1.14	¾
3½ x 3½	.32	.38	.40	.48	1.14	1 ¼
4 x 4	.46	.54	.57	.65	1.28	1 ¾
4½ x 4½	1.04	1.14	1.18	1.26	2.12	2 ¼
5 x 5	1.94	1.98	2.16	2.24	3.02	3
6 x 6	3.77	3.93	4.05	4.19	4.87	4 ¾

2x2 and 2½x2½ in., three pairs; larger sizes, one pair in a box, with screws.

STANLEY, LIGHT, NARROW

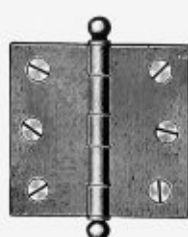


Wrought Steel, Ball Tips
No. 295-A—Polished bronze.
No. 295-D2—Antique copper.
No. 295-F—Dull brass.
No. 295-SF4—Sanded brass, oxidized and relieved.
No. 295-H—Sanded dull black.
No. 295-N—Nickel plated.
No. 295-CM—Chromium plated.

Lgth. in.	Per dozen pairs					Wt. doz. open, lbs.
	D2 F	A	SF4	N	CM	
2	\$1.98	2.34	2.70	3.16	6.98	1 ½
2½	2.34	2.70	3.06	3.54	7.34	1 ¾
3	2.98	3.36	3.70	4.20	7.98	2 ¼

One-half dozen pairs in a box, with screws.

LOOSE PIN BUTTS **STANLEY, LIGHT**



Wrought Steel, Ball Tips
No. 289-A—Polished bronze.
No. 289-D2—Antique copper.
No. 289-F—Dull brass.
No. 289-SF4—Sanded brass, oxidized and relieved.

No. 289-N—Nickel plated.
No. 289-CM—Chromium plated.
No. 289-H—Sanded dull black.

Size, in.	per dozen pairs					Wt. doz. prs., lbs.
	D2 F	A	SF4	N	CM	
2 x 2	\$2.16	2.52	2.88	3.50	7.16	2 ½
2½ x 2	2.34	2.70	3.06	3.70	7.34	3 ¼
2½ x 2½	2.52	2.88	3.24	3.88	7.52	3 ¾
3 x 3	3.24	3.60	4.00	4.60	8.24	6 ½

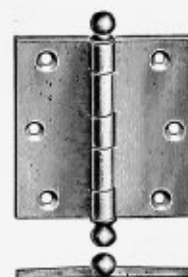
Wrought Bronze, Ball Tips

No. 189-N—Nickel plated.
No. 189-CM—Chromium plated.

Size, in.	Per dozen pairs		Wt. doz. prs., lbs.
	No. 189-N	No. 189-CM	
2 x 2	\$ 8.50	\$10.50	2 ½
2½ x 2	10.20	12.10	3 ½
2½ x 2½	12.00	14.00	4 ½

One-half dozen pairs in a box, with screws.

CORBIN

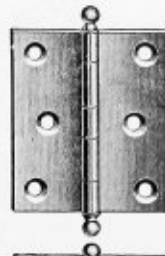


Cast Bronze, Brass Pin, Ball Tips
No. B102¾—Polished bronze.
No. R102¾—Antique copper.
No. EA102¾—Dull brass.
No. A102¾—Polished brass.
No. SKA102¾—Sanded brass, oxidized and relieved.
No. E102¾—Nickel plated.

Size, in.	Per pair			Wt. pair, lbs.
	B R A	SKA	E	
2 x 1½	\$1.60	\$1.70	\$1.70	¼
2 x 2	1.82	1.98	1.98	½
2½ x 2	2.20	2.42	2.42	¾
2½ x 2½	2.40	2.62	2.62	1 ¼
3 x 2½	3.00	3.22	3.22	¾
3 x 3	3.35	3.65	3.65	1 ¾

2x1½ to 3x2½ in., twelve pairs; 3x3 in., six pairs in a box, with screws.

LOOSE PIN BUTTS **CORBIN**

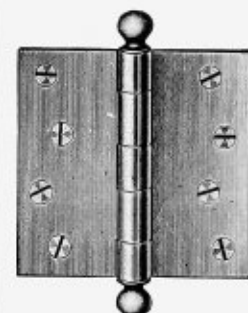


Wrought Bronze, Steel Pin, Ball Tips
No. B039½—Polished bronze.

Size, in.	Per Dozen Pairs		Wt. dozen pairs, lbs.
	No. B039½		
1½ x 1½	\$2.40		1
2 x 1½	3.60		1 ½
2½ x 1½	4.50		2 ¾
3 x 2	7.00		4 ¼

One dozen pairs in a box, with screws.

STANLEY, REGULAR WEIGHT



Wrought Steel, Ball Tips
No. 823—Plain, steel, without screws.

Per Dozen Pairs

Size, in.	No. 823	For Screw screws, holes Nos.		Wt. dozen prs., lbs.
2 x 2	\$ 2.04	4	7	4
2½ x 2	2.19	6	8	5 ½
2½ x 2½	2.30	6	8	6 ¼
3 x 2½	2.60	6	8	7 ¾
3 x 3	2.74	6	8	9 ½
3½ x 3	2.80	6	9	14 ½
3½ x 3½	2.88	6	9	15
4 x 4	3.92	8	10	21 ½
4½ x 4½	7.20	8	10	26 ½
5 x 5	14.00	10	12	35 ½
6 x 6	30.00	10	14	56

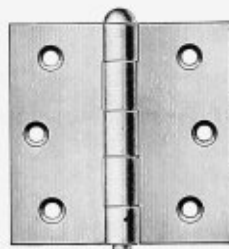
No. 731-J—Japanned, without screws.

Per Dozen Pairs

Size, in.	No. 731-J	For Screw screws, holes Nos.		Wt. dozen prs., lbs.
2 x 2	\$ 3.24	4	7	4
2½ x 2½	3.32	6	8	6 ¼
3 x 2½	3.36	6	8	8
3 x 3	3.40	6	8	9 ½
3½ x 3½	3.52	6	9	15
4 x 4	5.00	8	10	21 ½
4½ x 4½	8.80	8	10	26 ½
5 x 5	16.24	10	12	35 ½
6 x 6	34.30	10	14	56

2x2 to 3½x3½ in., one-half dozen pairs; 4x4 to 5x5 in., one-quarter dozen pairs; 6x6 in., one-twelfth dozen pairs in a box.

LOOSE PIN BUTTS STANLEY, BROAD



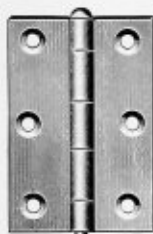
Wrought Steel,
Oval Tip

No. 804—Plain steel, without screws.

No. 1334—Galvanized, brass pin with screws.

Size, in.	Per dozen pairs		Doz. pairs in box		Wt. dz. pairs, lbs.
	No. 804	No. 1334	No. 804	No. 1334	
2x2	\$1.36	\$3.24	1	1/4	3
2 1/2 x 2	1.44	3.60	1	..	4 1/4
2 1/2 x 2 1/2	1.52	3.84	1	1/4	5
3x2 1/2	1.60	5.40	1	..	6 1/2
3x3	1.64	5.88	1	1/2	7
3 1/2 x 3	1.88	6.48	1/2	..	10
3 1/2 x 3 1/2	1.98	7.20	1/2	1/2	11
4x4	3.16	9.00	1/2	1/2	15
4 1/2 x 4 1/2	5.14	12.48	1/4	1/2	21
5x5	7.04	17.64	1/4	1/2	30
6x6	13.10	36.72	1/2	1/2	48

STANLEY, LIGHT NARROW



Wrought Steel, Oval Tip

No. 840—Plain steel, without screws.

Size length, in.	Per dozen pairs		Width open, in.		For screws Nos.		Wt. doz. prs., lbs.
	No. 840						
1	\$0.48		1	4	3	1/2	
1 1/4	.60		1 1/8	4	4	5/8	
1 1/2	.72		1 3/8	4	5	3/4	
1 3/4	.84		1 5/8	4	5	1 1/4	
2	.86		1 7/8	4	6	1 1/4	
2 1/2	1.04		1 11/8	6	6	2 3/8	
3	1.52		2	6	7	3 3/8	

No. 286—Planished and plated, with screws.

No. 286-D2—Antique copper.

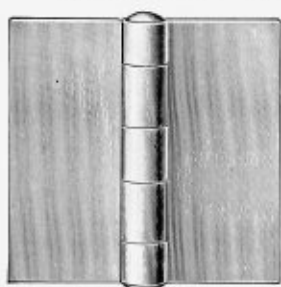
No. 286-F—Dull brass.

No. 286-SF4—Sanded brass, oxidized and relieved.

Size length, in.	Per dozen pairs		Wt. doz. pairs, lbs.
	D2	SF4	
1 1/2	\$1.60	\$2.04	1
2	1.78	2.24	2
2 1/2	2.12	2.56	2 5/8
3	2.76	3.34	4 1/4

One dozen pairs in a box.

FAST PIN BUTTS STANLEY, FULL SURFACE



Extra Heavy Wrought Steel

Furnished without screw holes to meet requirements on work of special nature.

No. 850—Plain steel, without screws.

Size, in.	Per dozen pairs		Wt. dozen pairs, lbs.
	No. 850		
2x2	\$3.16		4 1/2
2 1/2 x 2 1/2	5.48		8
3x3	6.85		12
3 1/2 x 3 1/2	10.75		17
4x4	13.60		25
4 1/2 x 4 1/2	17.40		31
5x5	25.90		36
6x6	39.10		52

2 1/2 x 2 1/2 to 4x4 in., one-quarter dozen pairs; 4 1/2 x 4 1/2 to 6x6 in., one-twelfth dozen pairs in a box.

STANLEY, BROAD



Wrought Steel

No. 808—Plain steel, without screws.

No. 1319—Galvanized, brass pin, with screws.

Size, in.	Per dozen pairs		Doz. pairs in box		Wt. dz. pairs, lbs.
	No. 808	No. 1319	No. 808	No. 1319	
2x2	\$1.24	\$3.12	1	1/4	3
2 1/2 x 2 1/2	1.40	3.72	1	1/4	5
3x3	1.54	5.52	1	1/2	7
3 1/2 x 3 1/2	1.80	6.84	1/2	1/2	11
4x4	3.06	8.52	1/2	1/2	15
4 1/2 x 4 1/2	4.80	11.88	1/4	1/2	21
5x5	7.50	16.32	1/4	1/2	30
6x6	12.50	33.72	1/2	1/2	48

STANLEY, TRANSOM

Wrought Steel, Planished and Plated, with Screws

No. 291-F—Dull brass.

No. 291-SF4—Sanded brass, oxidized and relieved.

No. 291-H—Sanded dull black.

Size, in.	Per dozen pairs		Wt. doz. pairs, lbs.
	F	SF4	
2x2	\$3.36	\$4.44	4
2 1/2 x 2 1/2	3.60	4.68	6
3x3	4.32	5.64	9
3 1/2 x 3 1/2	4.56	6.12	12
4x4	6.24	7.80	16

2x2 to 3x3 in., one-quarter dozen pairs; 3 1/2 x 3 1/2 and 4x4 in., one-twelfth dozen pairs in a box.

FAST PIN BUTTS STANLEY, NARROW



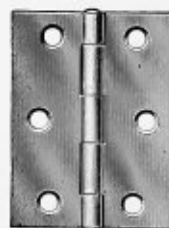
Wrought Steel

No. 800—Plain steel, without screws.

Size length, in.	Per dozen pairs		Width open, in.		For screws Nos.		Wt. doz. prs., lbs.
	No. 800						
1	\$0.44		1 1/8	4	5	5/8	
1 1/4	.48		1 3/8	4	6	1	
1 1/2	.60		1 5/8	4	6	1 1/4	
2	.72		1 7/8	4	7	2 1/4	
2 1/2	.92		1 7/8	6	7	3 1/8	
3	1.36		2 1/8	6	8	4 3/8	
3 1/2	2.04		2 1/2	6	9	7 1/8	
4	3.56		2 7/8	8	9	9 1/2	
4 1/2	5.60		3	8	10	12	
5	7.20		3 1/8	8	11	15	
6	11.00		4	8	12	23 1/2	

1 to 3 in., one dozen pairs; 3 1/2 to 4 1/2 in., one-half dozen pairs; 5 and 6 in., one-quarter dozen pairs in a box.

STANLEY, LIGHT, NARROW



Wrought Steel

No. 838—Plain steel, without screws.

Size length joint, in.	Per dozen pairs		Width open, in.		For screws Nos.		Wt. doz. prs., lbs.
	No. 838						
1	\$0.44		1	4	3	1/2	
1 1/4	.48		1 1/8	4	4	5/8	
1 1/2	.60		1 3/8	4	5	3/4	
1 3/4	.70		1 5/8	4	5	1 1/4	
2	.72		1 7/8	4	6	1 1/4	
2 1/2	.92		1 7/8	6	6	2 3/8	
3	1.36		2	6	7	3 3/8	

Wrought Steel, Planished and Plated, with Screws

No. 284-D2—Antique copper.

No. 284-F—Dull brass.

No. 284-SF4—Sanded brass, oxidized and relieved.

Size length joint, in.	Per dozen pairs		Width open, in.	Wt. doz. pairs, lbs.
	D2	SF4		
1 1/2	\$1.50	\$2.30	1 3/8	1
2	1.70	2.50	1 5/8	2
2 1/2	1.98	2.78	1 7/8	2 5/8
3	2.62	3.42	2	4 1/4

One dozen pairs in a box.

CABINET HINGES



Wrought Steel

Length joint $1\frac{1}{4}$ in., offset $\frac{3}{8}$ in.

Per dozen pairs
No. 1515-N7—Nickel plated; wt. per dozen pairs $1\frac{1}{4}$ lbs.\$2.00
Open stock.



Wrought Steel, Reversed Pad

Length joint $1\frac{1}{4}$ in., offset $\frac{3}{8}$ in.

Per dozen pairs
No. 1497-C7—Brass plated\$2.00
No. 1497-N7—Nickel plated 2.00
Weight per dozen pairs $1\frac{1}{2}$ pounds.
Open stock.

ORNAMENTAL HINGES



Wrought Steel

Length joint $1\frac{1}{4}$ in., width open 3 in.

Per dozen pairs
No. 1431-D2—Antique copper\$2.00
No. 1431-F—Dull brass 1.60
No. 1431-SF4—Sanded brass, oxidized and relieved 2.00
No. 1431-N—Nickel plated 2.00

Wrought Brass

Length joint $1\frac{1}{4}$ in., width open 3 in.

Per dozen pairs
No. 1430-C—Polished brass\$4.40
Weight per dozen pairs 2 pounds.
One dozen pairs in a box, with screws.



Wrought Steel

Length joint $1\frac{1}{2}$ in., width open $2\frac{1}{2}$ in.

Per dozen pairs
No. 1478-D2—Antique copper\$1.60
No. 1478-F—Dull brass 1.60
No. 1478-SF4—Sanded brass, oxidized and relieved 2.00
No. 1478-N—Nickel plated 2.00

Weight per dozen pairs $2\frac{1}{2}$ pounds.
One dozen pairs in a box, with screws.



Wrought Steel, Loose Pin, Half Surface

Length joint $1\frac{1}{2}$ in., width door leaf $1\frac{1}{4}$ in., width jamb leaf $\frac{3}{4}$ in.

Per dozen pairs
No. 1479-D2—Antique copper\$1.60
No. 1479-F—Dull brass 1.60
Weight per dozen pairs $1\frac{1}{2}$ pounds.
One dozen pairs in a box, with screws.

FLAP HINGES



Wrought Brass

Polished and Lacquered

Nos.	02115 $\frac{1}{4}$	02116 $\frac{1}{4}$
Length joint, in.	$\frac{3}{4}$	1
Width open, in.	$2\frac{1}{4}$	3
Wt. doz. pairs, lbs.	$\frac{5}{8}$	$1\frac{1}{2}$
Per dozen pairs	\$1.50	1.75

Nickel Plated

Nos.	02115 $\frac{1}{2}$	02116 $\frac{1}{2}$
Length joint, in.	$\frac{3}{4}$	1
Width open, in.	$2\frac{1}{4}$	3
Per dozen pairs	\$1.65	2.00

Three dozen pairs in a box.



Wrought Brass

Length joint $1\frac{1}{2}$ in., width open $4\frac{1}{2}$ in.

Per dozen pairs
No. 02151 $\frac{1}{4}$ —Buffed and lacquered;
wt. per dozen pairs $2\frac{1}{2}$ lbs.\$7.00
One dozen pairs in a box.

STRAP HINGES



Wrought Brass, Light

Nos.	SC1850—Polished brass.
Length leaves, in.	3 4 5
Width joint, in.	$1\frac{1}{2}$ $1\frac{1}{8}$ $1\frac{1}{4}$
Wt. doz. pairs, lbs.	2 $\frac{3}{4}$ 4 6
Per dozen pairs	\$14.10 19.10 25.00

One pair in a box, with screws.

T HINGES



Wrought Brass, Light

No. SC1854—Polished brass.

Length strap, in.	3 4 5
Lgh. joint, in.	$2\frac{3}{4}$ $2\frac{1}{2}$ 3
Wt. doz. pairs, lbs.	$2\frac{3}{4}$ $3\frac{1}{2}$ $4\frac{1}{2}$
Per doz. pairs	\$15.70 20.80 27.50

One pair in a box, with screws.

BOX HINGES



Wrought Brass

Size $1\frac{1}{4} \times 1\frac{1}{4}$ in.

Per dozen pairs
No. 02114—Dipped and lacquered;
wt. per dozen pairs $\frac{5}{8}$ lb.\$1.00
Three dozen pairs in a box.



Wrought Brass

Length joint $\frac{1}{2}$ in., width open $1\frac{1}{4}$ in.

Per dozen pairs
No. 02110—Dipped and lacquered;
wt. per dozen pairs $\frac{1}{4}$ lb.\$0.90
Three dozen pairs in a box.

BOX HINGES

Wrought Brass

Length joint $\frac{5}{8}$ in., width open 1 in.

Per dozen pairs
No. 02107—Dipped and lacquered;
wt. per dozen pairs $\frac{3}{8}$ lb.\$0.75
Three dozen pairs in a box.



Wrought Brass

Length joint $\frac{5}{8}$ in., width open $1\frac{1}{2}$ in.

Per dozen pairs
No. 02111—Dipped and lacquered;
wt. per dozen pairs $\frac{3}{8}$ lb.\$0.75
Three dozen pairs in a box.



Wrought Brass

Length joint $\frac{5}{8}$ in., width open $1\frac{1}{4}$ in.

Per dozen pairs
No. 02108—Dipped and lacquered;
wt. per dozen pairs $\frac{3}{8}$ lb.\$1.00
Three dozen pairs in a box.



Wrought Brass

Length joint $\frac{5}{8}$ in., width open $2\frac{1}{2}$ in.

Per dozen pairs
No. 02112—Dipped and lacquered;
wt. per dozen pairs $\frac{3}{8}$ lb.\$1.00
Three dozen pairs in a box.



Wrought Brass

Length joint $\frac{1}{2}$ in., width open $3\frac{1}{4}$ in.

Per dozen pairs
No. 02121—Dipped and lacquered;
wt. per dozen pairs $\frac{3}{4}$ lb.\$2.25
One and one-half dozen pairs in a box.



Wrought Brass, Buffed and Lacquered

Nos.	02122 $\frac{1}{4}$	02120 $\frac{1}{4}$
Length joint, in.	$\frac{3}{4}$	$\frac{3}{4}$
Width open, in.	$2\frac{1}{4}$	$3\frac{1}{2}$
Screw holes	6	8
Wt. dozen pairs, lbs.	$\frac{3}{4}$	1
Per dozen pairs	\$1.50	2.60

One and one-half dozen pairs in a box.

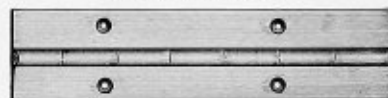


Wrought Brass

Length joint $\frac{3}{4}$ in., width open $2\frac{3}{4}$ in.

Per dozen pairs
No. 02119—Dipped and lacquered;
wt. per dozen pairs $\frac{7}{8}$ lb.\$2.00
One and one-half dozen pairs in a box.

PIANO HINGES



Wrought Brass

Lengths up to 5 feet.

Per foot
No. 5343— $1\frac{1}{8}$ in. wide, natural finish\$1.00
No. 5343N— $1\frac{1}{8}$ in. wide, nickel plated 1.00
No. 7453— $1\frac{1}{2}$ in. wide, nickel plated 1.50
No. 9453—2 in. wide, nickel plated. 2.00
Open stock.

T PLATES



No. 995½—
Wrought
Steel, Plain

Size, in.	Per dozen	Width, in.	Wt. dozen, lbs.
3x3	\$1.05	5/8	7/8
4x4	1.20	3/4	1 1/2
5x5	1.70	1	2 1/2
6x6	2.20	1 1/8	5 1/8

3x3 to 5x5 in., two dozen; 6x6 in., one dozen in a box.

MENDING PLATES



No. 995—Wrought Steel
Plain

Length, in.	Per dozen	Width, in.	Wt. dozen, lbs.
2	\$0.18	5/8	7/8
2 1/2	.20	5/8	1
3	.24	3/4	1 1/4
4	.32	7/8	1 1/2
5	.40	1	1 3/4
6	.48	1 1/8	2 1/4
8	.68	1 1/4	4
10	1.05	1 3/4	8
12	1.30	1 3/4	9

2 to 6 in., two dozen; 8 to 12 in., one dozen in a box.

HINGE CLASPS



Wrought Brass
Length 2 3/4
in., width at
joint 3/4 in.

No. 03017½—Buffed and lacquered;
wt. per dozen 8 oz.\$4.20
Three dozen in a box, right and left hand.

HINGE HASPS



Wrought Brass
Length 1 3/4 in., width
at joint 5/8 in.

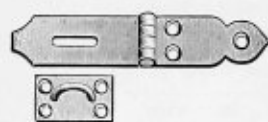
No. 03000½—Buffed
and lacquered; wt.
per dozen 2 1/2
oz.\$1.15

Three dozen in a box.



Wrought Brass
Length 2 3/4 in.,
width at joint
5/8 in.

No. 03001½—Buffed and lacquered;
wt. per dozen 3 oz.\$1.50
Three dozen in a box.



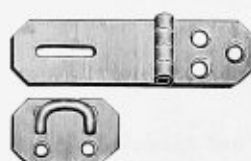
Wrought
Brass

Length 3 in.,
width at joint
1/2 in.

No. 03002½—Buffed and lacquered;
wt. per dozen 7 oz.\$1.00

Three dozen in a box.

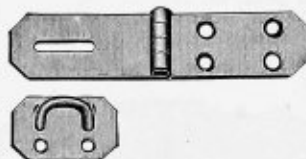
HINGE HASPS



Wrought
Brass,
Buffed and
Lacquered

Nos.	Per dozen	Length, in.	Width joint, in.	Wt. doz., oz.
03004½	\$1.10	2 3/4	3/4	3
03005½	1.80	3 3/8	3/4	12
03011½	2.50	3 3/8	1	16

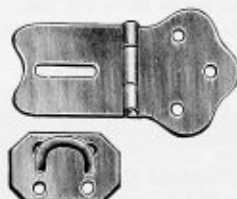
Three dozen in a box.



Wrought Brass

Length 3 1/2 in., width at joint 3/4 in.

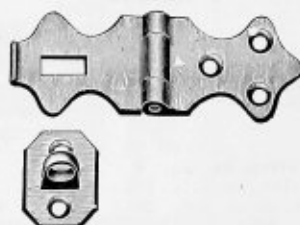
No. 03006½—Buffed and lacquered;
wt. per dozen 12 oz.\$6.00
Three dozen in a box.



Wrought Brass

Length 2 1/2 in., width at joint 1 in.

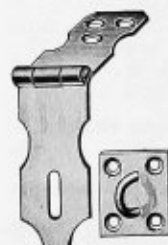
No. 03003½—Buffed and lacquered;
wt. per dozen 10 oz.\$1.80
Three dozen in a box.



Cast Brass, Buffed and Lacquered

Nos.	Per dozen	Length, in.	Width joint, in.	Wt. dozen, lbs.
03300½	\$6.00	3 1/2	1	1 3/4
03301½	12.00	5	1 1/2	5 3/8

One dozen in a box.



Wrought Steel,
Bronze Plated

No. 349-A — Length
slotted part 2 1/4
in., width joint 1/2
in.; wt. per dozen
1 lb.\$1.80
One dozen in a box,
with screws.

SAFETY HINGE HASPS



Cast Brass

Length closed 2 7/8 in., width at joint
3/4 in.

No. 03306½—Buffed and lacquered;
wt. per dozen 2 1/8 lbs.\$6.00

One dozen in a box.



Cast Brass

Length closed 4 1/2 in., width at joint
1 1/8 in.

No. 03322½—Buffed and lacquered;
wt. per dozen 12 lbs.\$24.00

One-half dozen in a box, with screws.



Wrought Steel

Length slotted part 2 5/8 in., width at
joint 1 1/2 in.

No. 346-A—Bronze plated; wt. per
dozen 1 lb.\$1.80

One dozen in a box, with screws.

BOX CATCHES



Wrought Brass
Size 7/8x1 3/4 in.

No. 866—Natural finish; wt. per
dozen 1 1/8 lb.\$1.00

Three dozen in a box.



Wrought Brass
Size 3/4x1 3/8 in.

No. 865—Natural finish; wt. per
dozen 1/2 lb.\$0.75

Three dozen in a box.

DRAWER KNOBS



Wood, Walnut
Finish

Nos.....	R3701	R3702	R3703
Size, in.	1	1 1/4	1 1/2
Wt. dozen, lbs....	5/8	1 1/4	3/4
Per dozen	\$1.00	1.00	1.00

Two dozen in a box.

COMMODOE BUTTONS



Wrought Brass Knob,
Cast Iron Cam
Per dozen
No. R1562—1 1/8 in.;
wt. per dozen 1/2
lb.\$2.00
Three dozen in a box.

MIRROR SCREWS



Cast Brass, Steel Bolt

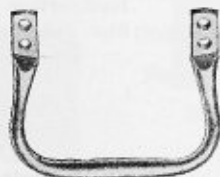
Length over all 4 1/8 in., bolt 2 3/4 in.

Per dozen

No. 75-AOB—Antique brass.....\$4.00

One dozen in a box.

TRAY HANDLES



Cast Brass,
Polished

Nos.	335	336
Size, in.	2x2 3/8	2 1/2 x 3 1/4
Wt. dozen, lbs....	3/4	2
Per dozen	\$4.00	5.00

One-half dozen in a box, with screws.

LIFTING HANDLES



Cast Iron, Japanned

Nos.	162	163
Width over all, in.....	4 1/2	4 3/4
Wt. dozen pairs, lbs.....	4 1/2	5 1/4
Per dozen pairs.....	\$2.90	3.25

One dozen pairs in a box.

LIFTING HANDLES



Cast Brass, Polished

Bail swings both ways.

Nos.	516 1/2	518 1/2
Width bail, in.....	2 1/2	3 1/2
Wt. dozen, lbs.....	1 1/4	1 1/2
Per single dozen.....	\$3.45	4.10

Cast Brass, Polished

Bail swings one way.

Nos.	516	518
Width bail, in.....	2 1/2	3 1/2
Wt. dozen, lbs.....	1 1/4	2
Per single dozen.....	\$3.45	4.10

Two dozen in a box, with screws.

LEATHER HANDLES



Ring Handle

Per dozen

No. 4—6 in.; wt. per dozen 1 1/8 lbs.\$6.00

One dozen in a box.



Tool Chest Handle

Per dozen

No. 5—6 in.; wt. per dozen 2 3/8 lbs.\$6.00

One dozen in a box.



Emergency Buckle Handle

Per dozen

No. 7—6 in.; wt. per dozen 1 1/4 lbs..\$6.00

One dozen in a box.

CHEST HANDLES



Wrought Steel, Brass
Plated

Per single dozen

No. 567—Width over
all, 3 1/2 in.; wt.
dozen 2 1/4 lbs..\$1.00

One dozen in a box, with screws.

Wrought Steel, Japanned
Tubular grip.



Per dozen pairs

No. 1216-J—Width
bail 3 3/4 in., plate
2 1/2 x 5 in.; wt.
dozen pairs 16 1/4
lbs.\$13.20

One-quarter dozen pairs in a box, with
screws.

CHEST HANDLES

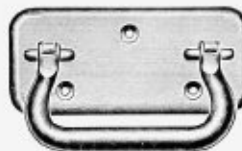


Wrought Steel

No. 1205-J—
Japanned.

Size	3 1/2	4
Width bail, in.....	3 3/4	4 1/4
Plate, in.	3 3/8 x 2 1/8	4 1/8 x 3
Wt. dozen pairs, lbs....	10 1/4	13 1/8
Per dozen pairs.....	\$7.70	10.70

One-quarter dozen pairs in a box, with
screws.



Wrought
Steel,
Brass
Plated

Nos.....	B2081	B2082
Width bail, in.....	3 1/2	4
Plate, in.	1 1/2 x 4 1/4	2 x 4 3/4
Wt. dozen pairs, lbs....	3	3 1/4
Per dozen pairs.....	\$7.35	8.40

One-half dozen pairs in a box, with
screws.



Cast Iron
Japanned

No.01871
Size, in. ... 3x3
Wt. doz. prs.,
lbs. 8 1/2
Per dozen
pairs\$2.00

Nos.	1871	1872
Size, in.	3 1/2 x 3 1/2	4 x 4
Wt. dozen pairs, lbs....	14 1/2	19
Per dozen pairs.....	\$2.30	2.70

Cast Brass, Polished

Nos.01871 1/2 1871 1/2 1872 1/2
Size, in. 3x3 3 1/2 x 3 1/2 4x4
Wt. doz. prs., lbs.. 9 16 1/2 21
Per dozen pairs...\$21.90 24.00 29.10
One-quarter dozen in a box; japanned
without screws, brass with screws.

FLUSH



Cast Iron, Japanned

No.1874
Size, in. 2 1/4 x 3
Wt. doz. pairs,
lbs. 8
Per doz. pairs.\$4.40

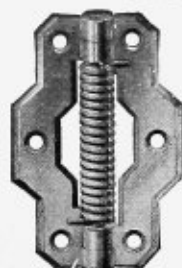
Nos.	1875	1876
Size, in.	2 1/2 x 3 1/2	3 1/2 x 4 1/4
Wt. dozen pairs, lbs..	10	22 1/2
Per dozen pairs.....	\$5.00	8.20

Cast Brass, Polished

Nos.1874 1/2 1875 1/2 1876 1/2
Size, in. 2 1/4 x 3 2 1/2 x 3 1/2 3 1/2 x 4 1/4
Wt. doz. prs., lbs. 8 1/2 10 1/2 23
Per dozen pairs.\$29.10 36.40 43.60

One-half dozen pairs in a box; japanned
without screws, brass with screws.

SPRING HINGES SINGLE ACTING



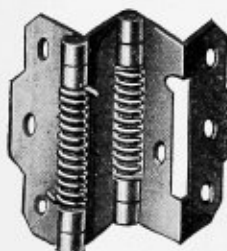
Wrought Steel

Per dozen pairs
No. 3—3 in. flanges,
walnut bronzed.\$3.50

Wrought Brass

Per dozen pairs
No. 703—3 in. flanges, natural
color\$6.50
No. 978—2 1/4 in. flanges, polished.. 8.00
Weight per dozen pairs 3 pounds.
One dozen pairs in a box, No. 978 packed
with screws.

DOUBLE ACTING



Wrought Steel

Per dozen pairs
No. 13—3 in.
flanges, wal-
nut bronzed
.....\$7.00

Wrought Brass

Per dozen pairs
No. 713—3 in. flanges, natural
color\$11.00
Weight per dozen pairs 6 1/2 pounds.
One dozen pairs in a box.

SHOW CASE AND CABINET



Size 2x1 1/2 in.
Per dozen pairs
No. 43122X—
Wrought steel,
japanned\$1.80
No. 43272X—
Wrought brass,
dull brass fin-
ish 3.75

Weight per dozen pairs 2 pounds.
One dozen pairs in a box.

SCREEN DOOR HINGES



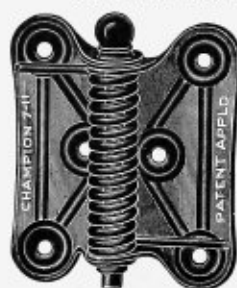
Cast Iron, Holdback

Size 3x2 1/2 in.

Per doz. pairs
No. 600 — Ja-
panned; wt.
per dozen
pairs 11 1/4
lbs.\$1.60

One-half dozen
pairs in a box.

SCREEN DOOR HINGES



Wrought Steel; Loose Pin

Size 2 3/4 x 2 1/2 in.
Per doz. pairs
No. 7-11 — Ja-
panned; wt.
per dozen
pairs 6 1/4 lbs.
.....\$1.85
One dozen pairs
in a box.



Wrought Steel, Detachable

To detach,
open door and
push end of
spring down
into hook on
barrel, and
withdraw pin.
Size 2 3/4 x 2 3/4
in.

Per doz. pairs
No. 960—Japanned\$2.20
No. 962—Antique copper..... 4.10
No. 963—Dull brass..... 4.10
No. 964—Nickel plated..... 4.70
Weight per dozen pairs 7 1/2 pounds.
One dozen pairs in a box; japanned with-
out screws, others with screws.



Wrought Steel

Two bearing
joints.

Japanned
without screws,
plated finishes
with screws.

Size 2 3/4 x 2 3/4
in.

Per doz. pairs
No. 900—Japanned\$2.50
No. 902—Antique copper 4.30
No. 903—Dull brass..... 4.30
No. 904—Nickel plated..... 5.00
Weight per dozen pairs 7 1/2 pounds.
One dozen pairs in a box.

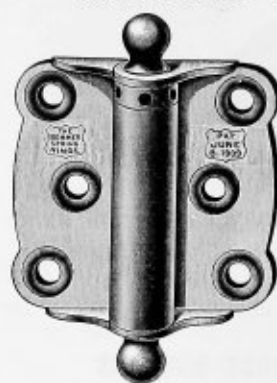


Wrought Steel, Half Surface

Japanned with-
out screws, plated
finishes with screws.
Size 2 3/4 x 2 3/4 in.

Per doz. pairs
No. 970—Japanned\$3.20
No. 972—Antique copper..... 5.00
No. 973—Dull brass..... 5.00
No. 974—Nickel plated 5.50
Weight per dozen pairs 7 1/2 pounds.
One dozen pairs in a box.

SCREEN DOOR HINGES



Adjustable Tension

Tension can
be regulated
after hinge is
applied.

Size 3x3 in-
ches.

Wrought Steel

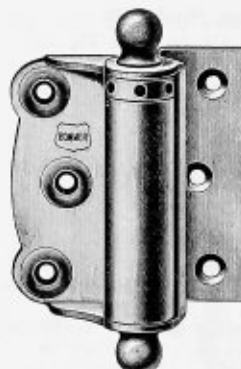
Per pair
No. 2100—Japanned\$1.00
No. 2101—Bronze plated..... 1.10
No. 2102—Antique copper..... 1.10
No. 2103—Dull brass..... 1.10
No. 2105—Sanded brass..... 1.20
No. 2104—Nickel plated..... 1.20

Wrought Bronze

Per pair
No. 2110—Polished bronze.....\$2.80
No. 2113—Nickel plated..... 3.20

Weight per pair 1 1/4 pounds.

One pair in a box, with screws.



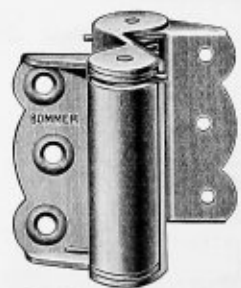
Wrought Steel Adjustable Tension

Half surface.
Size 3x3 in.

Per pair
No. 2200—Japanned\$1.00
No. 2201—Bronze plated..... 1.10
No. 2202—Antique copper..... 1.10
No. 2203—Dull brass..... 1.10
No. 2205—Sanded brass..... 1.20
No. 2204—Nickel plated..... 1.20

Weight per pair 1 1/2 pounds.

One pair in a box, with screws.



Wrought Steel, Double Action

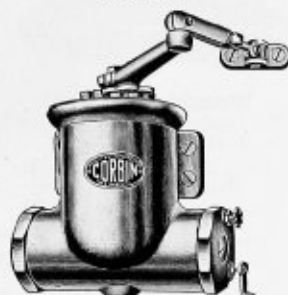
Length flanges
2 3/4 in., for doors
1 to 1 1/2 in.
thick.

Per doz. pairs
No. 9700—Ja-
panned; wt.
per dozen
pairs 14 1/4
lbs.\$8.60

One-half dozen pairs in a box, with
screws.

DOOR CHECKS AND SPRINGS

CORBIN



Right or left hand without change. Not affected by extremes of temperature and can be adjusted to any draught by a turn of a screw.

Dual valve control makes it possible to regulate the speed of closing the door. It can be made to move quickly to a point near the jamb and then close slowly, or it can be made to close at a uniform rate of speed. In each instance the adjustment is simple, accurate and easy to make by means of the two valves.

Cast Iron, Statuary Brown

Each

- No. 1—For screen or light inside doors; wt. each 6¼ lbs.\$ 8.65
 No. 2—For heavy screen or light inside doors; wt. each 8¼ lbs. 11.00
 No. 3—For light outside doors; wt. each 13½ lbs. 13.35
 No. 4—For ordinary outside or heavy inside doors; wt. each 17½ lbs. 16.00
 No. 5—For heavy outside doors; wt. each 22 lbs. 21.35
 No. 6—For extra heavy entrance doors, refrigerator doors, etc.; wt. each 27 lbs. 26.65
 One in a box, with screws.

DOOR CHECK SPRINGS

CORBIN

Finest Quality Clock
Spring Steel



Nos. 139-1	139-2	139-3
For check, Nos. 1	2	3
Wt. each, lbs. ½	¾	1½
Each \$0.90	1.15	1.35
Nos. 139-4	139-5	139-6
For check, Nos. 4	5	6
Wt. each, lbs. 2¼	2¾	3½
Each \$1.55	2.25	3.70

DOOR CLOSER SPRINGS

YALE

For 1932 and later closers. For older models specify date and size of closer. If no date is shown on closer, order should so state.

Nos. 519-71	519-72	519-73
For closer, Nos. 71	72	73
Wt. each, lbs. ½	¾	1½
Each \$0.90	1.15	1.35
Nos. 519-74	519-75	519-76
For closer, Nos. 74	75	76
Wt. each, lbs. 2¼	2¾	3½
Each \$1.55	2.25	3.70

Open stock.

DOOR CHECK BRACKETS

CORBIN



No. 25



No. 26

Cast Iron, Statuary Brown

For check, Nos.	No. 25 overhead bracket, each	No. 26 Corner bracket, each
1	\$1.35	\$1.35
2	1.75	1.75
3	2.00	2.00
4	2.55	2.55
5	3.05	3.05
6	3.25	3.25



No. 28



No. 29

Cast Iron, Statuary Brown

For check, Nos.	No. 28—Flush bracket, each	No. 29—Circular Top bracket, each
1	\$1.35	\$1.35
2	1.75	1.75
3	2.00	2.00
4	2.55	2.55
5	3.05	3.05
6	3.25	3.25

One in a package, with screws.

YALE



Soffit Bracket



Corner Bracket

Cast Iron, Brown Lacquer Finish

For check, Nos.	Soffit bracket, each	Corner bracket, each
71	\$1.35	\$1.35
72	1.75	1.75
73	2.00	2.00
74	2.55	2.55
75	3.05	3.05
76	3.25	3.25



Cast Iron, Brown

Lacquer Finish

Flush Bracket

For check, Nos.	71	72	73
Each	\$1.35	1.75	2.00
For check, Nos.	74	75	76
Each	\$2.35	3.05	3.25

Open stock.

DOOR HOLDERS

CORBIN



Cast Iron; Rubber Tip on Bolt Head

Size 7¼x2¼ in., throw 1½ in.

Each

- No. B3860—Bronze plated\$1.45
 No. R3860—Antique copper 1.45
 No. EA3860—Dull brass 1.45
 No. SKA3860—Sanded brass, oxidized and relieved 1.60

Cast Bronze; Rubber Tip on Bolt Head

Size 7¼x2¼ in., throw 1½ in.

Each

- No. B2860—Polished bronze\$2.80
 No. R2860—Antique copper 2.80
 No. EA2860—Dull brass 2.80
 No. A2860—Polished brass 2.80
 No. F2860—Genuine rustless iron... 2.10

Weight each ¾ pound.
 Three in a box, with screws.

SECURITY

Hellicrome Iron,
Rust-proof

Threaded in slip-proof rubber shoe. For use on doors with floor clearance of 2 in. or less.

Each

- No. 444—Gilt finish; wt. each ¾ lb.\$0.75



One in an envelope, twelve in a display carton.

HERCULES

Bronze Alloy
Threaded in slip-proof rubber shoe.

Holder held upright when not in use by a fool-proof enclosed action.



For Doors with 2 in. or Less Floor Clearance

Each

- No. 4—Polished bronze\$1.65
 No. 4-S—Dead black 1.25

For Doors with 3½ in. or Less Floor Clearance

Each

- No. 5—Polished bronze\$1.85
 Note—Brushed or sand blast finishes at same price. Special plated finishes 10% extra.

Weight each about 1 pound.
 Six in a box.

Each

Extra Shoes—For Security or Hercules holders\$0.20

FOOT BOLTS



Cast Iron

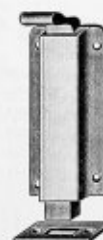
Size 2½x1½ in.

Per dozen
No. EA3143—Dull brass;
wt. per doz. 2½ lbs. \$4.80

Cast Bronze

Size 2½x1½ in.

Per dozen
No. EA143—Dull brass; wt. per
dozen 2½ lbs. \$13.10
One dozen in a box, with screws.



No. 3244½—Wrought Steel
Width 1½ in.

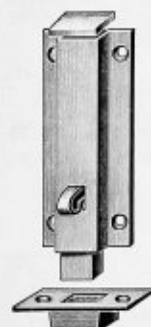
Length, in.	Per dozen R EA	Wt. dozen, lbs.
3	\$5.50	3½
4	6.00	4

No. 1244½—Wrought
Bronze

Width 1½ in.

Length, in.	Per dozen B	Wt. dozen, lbs.
3	\$12.00	3½
4	13.35	4½

One-half dozen in a box, with screws.



No. 13250—Cast Iron
Width 2½ in.

—Per dozen—			
Lgth., in.	J	R EA	doz., lbs.
6	\$6.40	\$7.90	11½
8	8.00	9.70	15

No. 4250½—Cast Bronze
Width 2½ in.

Length, in.	Per dozen B	Wt. doz., lbs.
6	\$27.70	13½
8	35.65	16

One-half dozen in a box, with screws.



Wrought Steel

No. 1056-J—Japanned

Length bolt, in.	Per dozen	Plate, in.	Wt. doz., lbs.
6	\$5.60	5x2	9½
8	16.90	7x2½	18
10	24.50	9x3½	33

No. 356-F—Dull Brass

Length bolt, in.	Per dozen	Plate, in.	Wt. dozen, lbs.
3	\$7.20	2½x1½	2½
6	11.20	5 x2	9½
8	21.20	7 x2½	18

3 and 6 in., one-half dozen; 8 in., one-quarter dozen; 10 in., one-twelfth dozen in a box, with screws.

CHAIN BOLTS



Cast Iron

Size 2x1 in.

Per dozen
No. EA3142—Dull brass;
weight per dozen 3¼
lbs. \$4.80

Cast Bronze

Size 2x1 in.

Per dozen
No. EA142—Dull brass; wt. per
dozen 3¼ lbs. \$13.10
One dozen in a box, with screws.



No. 13252—Cast Iron
Width 2½ in.

—Per dozen—			
Lgth., in.	J	R EA	Wt. doz., lbs.
4	\$5.40	\$7.70	7
6	6.50	8.90	12
8	7.75	10.90	15

No. 4252½—Cast
Bronze

Width 2½ in.

Lgth., in.	Per dozen B	Wt. doz., lbs.
4	\$20.00	7½
6	26.65	13
8	36.00	16½

One-half dozen in a box, with screws.



Wrought Steel

No. 1055-J—Japanned

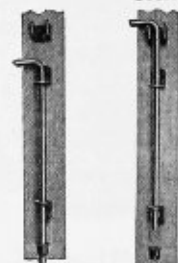
Lgth. bolt, in.	per dozen	Plate, in.	Wt. doz., lbs.
6	\$5.60	5x2	12½
8	11.20	7x2½	22
10	24.50	9x3½	34½

No. 355-F—Dull Brass

Lgth. bolt, in.	per dozen	Plate, in.	Wt. doz., lbs.
3	\$7.20	2½x1½	4½
6	11.20	5x2	12½
8	21.20	7x2½	22

3 and 6 in., one-half dozen; 8 in., one-quarter dozen; 10 in., one-twelfth dozen in a box, with screws.

CANE BOLTS



Wrought Steel

For use at bottom
of garage and other
heavy outside doors.

No. 1967—Cadmium
plated bolt, ja-
panned plates.

Size, in.	½x12	¾x18	¾x24	¾x24
Wt. dozen, lbs.	18	30	36	51
Per dozen	\$6.00	8.00	9.00	10.00

One-sixth dozen in a box.

BARREL BOLTS



Wrought Steel, Light

No. 1078—Japanned; brass plated bolt;
without screws.

Length, in.	2	2½	3
Wt. dozen, lbs.	1¼	1½	2½
Per dozen	\$0.95	1.00	1.15

Length, in.	4	5	6
Wt. dozen, lbs.	2½	5	5½
Per dozen	\$1.35	1.75	2.15

No. 406-A—Bronze plated; with screws.
Length, in. 3 4 5 6

Per dozen	\$2.40	2.64	3.84	4.00
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One dozen in a box.



No. 1923—Wrought Brass, Polished

Length, in.	2½	3	4
Wt. dozen, lbs.	2½	2½	3
Per dozen	\$4.60	6.50	7.50

Length, in.	5	6
Wt. dozen, lbs.	4½	4½
Per dozen	\$10.60	13.80

One dozen in a box, with screws.



Wrought Steel, Heavy

No. 1084—Japanned; brass plated bolt,
without screws.

Length, in.	3	4	5
Wt. dozen, lbs.	3½	4½	6
Per dozen	\$2.05	2.55	2.95

Length, in.	6	8
Wt. dozen, lbs.	7½	15
Per dozen	\$3.30	6.25

3 to 5 in., one dozen; 6 in., one-half
dozen; 8 in., one-quarter dozen in a box.

CELLAR WINDOW BOLTS



Wrought Steel

No. 1076—Japanned; brass plated bolt
without screws.

Length, in.	2	2½	3
Wt. dozen, lbs.	1¼	1½	2½
Per dozen	\$1.22	1.28	1.76

One dozen in a box.

SPRING BOLTS



Wrought Brass, Polished

No. 1585—2 in.; wt. per dozen ¼ lb. \$3.20
Three dozen in a box, with screws.

FRICION CATCHES

Brass Shell, Strike and Bolt



Per gross
No. 10—Diameter $\frac{1}{4}$ in., length $\frac{1}{2}$ in., strike $\frac{3}{4} \times \frac{3}{4}$ in.; wt. per gross $1\frac{1}{4}$ lbs.\$9.00

One gross in a box.

Brass Shell, Strike and Bolt



Per gross
No. 10 $\frac{1}{2}$ —Diameter $\frac{3}{8}$ in., length $\frac{3}{4}$ in., strike $1\frac{1}{2} \times \frac{3}{4}$ in.; wt. per gross 2 lbs.\$9.60

One gross in a box.

Brass Shell, Strike and Bolt



Per gross
No. 11—Diameter $\frac{3}{8}$ in., length $\frac{3}{4}$ in., strike $1\frac{1}{2} \times \frac{3}{4}$ in.; wt. per gross $2\frac{1}{2}$ lbs.\$10.40

No. 12—Diameter $\frac{1}{2}$ in., length $\frac{3}{4}$ in., strike $1\frac{1}{2} \times \frac{3}{4}$ in.; wt. per gross $6\frac{1}{2}$ lbs. 17.60

No. 11, one gross; No. 12, one-half gross in a box.

Wrought Brass



Per dozen
No. 01819— $1\frac{1}{4} \times \frac{3}{4}$ in.; wt. per dozen $\frac{1}{4}$ lb.\$1.50
One dozen in a box.

Wrought Brass, Polished and Lacquered Easy spring.



Per dozen
No. 01820— $2 \times \frac{3}{4}$ in.; wt. per dozen $\frac{5}{8}$ lb.\$1.50
One dozen in a box.

HAGSTROM



Brass

Per dozen
No. 10—For doors $\frac{5}{8}$ to $1\frac{1}{2}$ in. thick; for use on medicine cabinets, bookcases, switch cabinets, etc., wt. per dozen $\frac{3}{4}$ lb.\$3.40
No. 11—For doors $\frac{3}{4}$ to $1\frac{1}{4}$ in. thick; for use on French doors, closet doors, casements, etc.; wt. per dozen $1\frac{1}{4}$ lbs. 4.50
One dozen in a box, with screws.

SHOW CASE CATCHES



Cast Bronze Polished

Nos. B1409 B1410 $\frac{1}{2}$
Size, in. $1\frac{1}{2} \times 1\frac{1}{2}$ $1\frac{1}{4} \times 2$
Wt. dozen, lbs. $1\frac{1}{8}$ $1\frac{1}{8}$
Per dozen \$6.20 7.20
One dozen in a box, with screws.

PUSH BUTTON CATCHES



Wrought Bronze

Base $1\frac{1}{2}$ in., for doors up to $1\frac{1}{2}$ in. thick.

Per dozen
No. 9400-10—Polished bronze\$5.00
No. 9400-16—Antique copper 5.50
No. 9400-23—Dull brass 5.00
No. 9400-23 $\frac{1}{2}$ —Sanded brass, oxidized and relieved 5.50
No. 9400-19—Nickel plated 5.50
Weight per dozen 2 pounds.
One dozen in a box, with screws.

LEVER CUPBOARD CATCHES

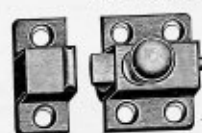


Cast Bronze

Plate $1\frac{1}{4} \times 1\frac{1}{4}$ in., for doors up to $1\frac{1}{4}$ in. thick.

Per dozen
No. B329—Polished bronze; wt. per dozen $1\frac{1}{2}$ lbs.\$7.50
One dozen in a box, with screws.

CUPBOARD CATCHES



Wrought Steel Size $1\frac{1}{2} \times 1$ in.

Per dozen
No. R11270—Antique copper\$1.45
No. EA11270—Dull brass 1.45
No. E11270—Nickel plated 1.55
Size $1\frac{1}{2} \times 1\frac{1}{2}$ in.
Per dozen
No. R11271—Antique copper\$1.45
No. EA11271—Dull brass 1.45
No. E11271—Nickel plated 1.55
Weight per dozen 1 pound.
One dozen in a box, with screws.

CUPBOARD CATCHES

Cast Iron

Size $1\frac{1}{2} \times 1$ in.

Per dozen
No. B13270 $\frac{1}{4}$ —Bronze plated\$3.10

No. R13270 $\frac{1}{4}$ —Antique copper 3.10
No. EA13270 $\frac{1}{4}$ —Dull brass 3.10
No. E13270 $\frac{1}{4}$ —Nickel plated 3.40
Weight per dozen $1\frac{1}{4}$ pounds.
Size $1\frac{1}{2} \times 1\frac{1}{4}$ in.
No. B13271 $\frac{1}{4}$ —Bronze plated\$3.25
No. R13271 $\frac{1}{4}$ —Antique copper 3.25
No. EA13271 $\frac{1}{4}$ —Dull brass 3.25
No. SKA13271 $\frac{1}{4}$ —Sanded brass, oxidized and relieved 3.45
No. E13271 $\frac{1}{4}$ —Nickel plated 3.45
Weight per dozen $1\frac{1}{2}$ pounds.

Cast Bronze, Size $1\frac{1}{2} \times 1$ in.

No. B2270 $\frac{1}{2}$ —Polished bronze\$7.00
No. R2270 $\frac{1}{2}$ —Antique copper 7.00
No. EA2270 $\frac{1}{2}$ —Dull brass 7.00
No. E2270 $\frac{1}{2}$ —Nickel plated 7.70
No. CR2270 $\frac{1}{2}$ —Chromium plated 11.30
Weight per dozen $1\frac{1}{4}$ pounds.

Size $1\frac{1}{2} \times 1\frac{1}{4}$ in.

No. B2271 $\frac{1}{2}$ —Polished bronze\$7.50
No. R2271 $\frac{1}{2}$ —Antique copper 7.50
No. EA2271 $\frac{1}{2}$ —Dull brass 7.50
No. A2271 $\frac{1}{2}$ —Polished brass 7.50
No. SKA2271 $\frac{1}{2}$ —Sanded brass, oxidized and relieved 8.25
No. E2271 $\frac{1}{2}$ —Nickel plated 8.25
No. CR2271 $\frac{1}{2}$ —Chromium plated 11.85
No. F2271 $\frac{1}{2}$ —Genuine rustless iron. 5.65
Weight per dozen $1\frac{1}{4}$ pounds.
One dozen in a box, with screws.

CUPBOARD TURNS

Cast Iron

Size $1\frac{1}{4} \times \frac{1}{2}$ in.

Per dozen
No. R13033 $\frac{1}{4}$ —Antique copper\$6.60
No. EA13033 $\frac{1}{4}$ —Dull brass 6.60

No. SKA13033 $\frac{1}{4}$ —Sanded brass, oxidized and relieved 7.25
Weight per dozen 2 pounds.
Size $2\frac{1}{2} \times 1\frac{1}{2}$ in.
No. R13043 $\frac{1}{4}$ —Antique copper\$7.30
No. EA13043 $\frac{1}{4}$ —Dull brass 7.30
No. SKA13043 $\frac{1}{4}$ —Sanded brass, oxidized and relieved 8.05
Weight per dozen $3\frac{3}{4}$ pounds.

Cast Bronze, Polished

Size $1\frac{1}{4} \times 1\frac{1}{2}$ in.

No. R2233 $\frac{1}{2}$ —Antique copper\$9.10
No. EA2233 $\frac{1}{2}$ —Dull brass 9.10
No. SKA2233 $\frac{1}{2}$ —Sanded brass, oxidized and relieved 10.00
No. CR2233 $\frac{1}{2}$ —Chromium plated 13.60
Weight per dozen 2 pounds.

Size $2\frac{1}{2} \times 1\frac{1}{2}$ in.

No. R2243 $\frac{1}{2}$ —Antique copper\$10.20
No. EA2243 $\frac{1}{2}$ —Dull brass 10.20
No. SKA2243 $\frac{1}{2}$ —Sanded brass, oxidized and relieved 11.20
No. CR2243 $\frac{1}{2}$ —Chromium plated 14.80
Weight per dozen $3\frac{3}{4}$ pounds.
One dozen in a box, with screws.

We Carry a Complete

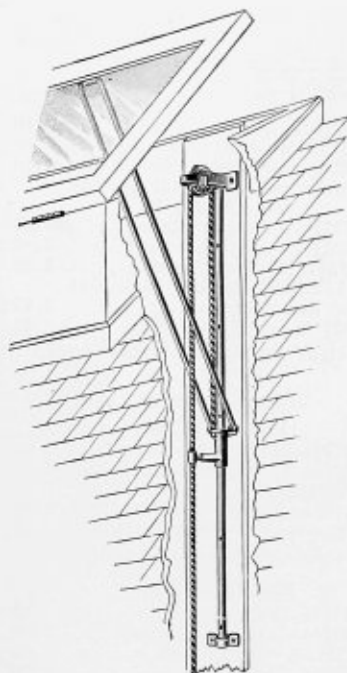
Line of

AUTOMOTIVE SUPPLIES

See Automotive Section

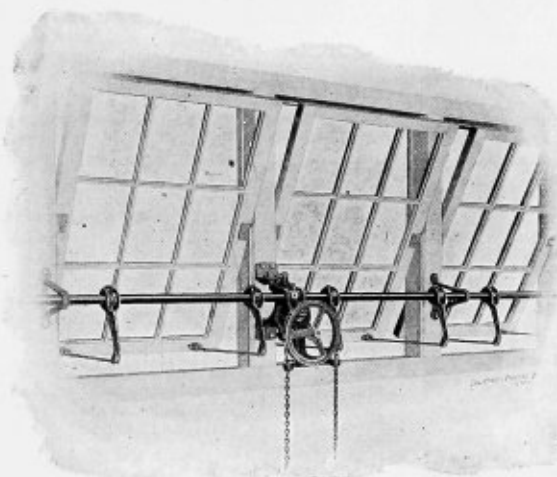
SKYLIGHT OPERATORS

CORBIN

Wrought Steel,
CopperedNo. 081— $\frac{3}{8}$ in. Diam.
RodLength, inches..... 18
Wt. each, lbs..... $1\frac{1}{2}$
Each\$4.00Length, inches..... 24
Wt. each, lbs..... $2\frac{1}{4}$
Each\$4.40No. 082— $\frac{7}{8}$ in. Diam.
RodLength, inches..... 18
Wt. each, lbs..... $2\frac{1}{4}$
Each\$5.35Length, inches..... 24
Wt. each, lbs..... 3
Each\$5.85Screws or rope not
included.

SASH OPERATORS

IDEAL



The Ideal Operator (Chain Control) is more widely used than other type of Sash Operating Mechanism, it consists mainly of a worm and gear control, is self-locking at all points—horizontal shafting of varying sizes from $\frac{3}{4}$ to $1\frac{1}{2}$ in., on which are clamped drop forged steel levers attached by connecting rods and sash plates to the sash.

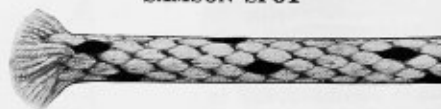
A large number of slightly varying types of control (worm and gear powers) have been developed which enables us to meet the peculiar and varying conditions which are often confronted, there being often, on the same job, several types required.

Note—Prices on Request or Receipt of Specifications.

We are Prepared to Furnish Operators for all Conditions.

SASH CORD

SAMSON SPOT



Extra Quality Cotton Yarn

In 100 Foot Hanks, Sold on Net Weights.

Size Nos.	6	7	8	9
Diameter, inches	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$
Average number feet to lb.	66	55	44	36
For weights, lbs.	Less than 5	5 to 12	12 to 20	20 to 30
App. weight dozen hanks, lbs.	18	22	27	33
Per pound	\$			

Size Nos.	10	12	16
Diameter, inches	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Average number of feet to lb.	27	20	11
For weights, lbs.	30 to 40	40 to 50	Over 50
App. weight per dozen hanks, lbs.	44	60	108
Per pound	\$		

PHOENIX



Hard Braided, White Cotton

In 100 Foot Hanks, Sold on Net Weights.

Size Nos.	6	7	8	9	10	12	16
Per pound	\$						

AETNA

Hard Braided White Cotton

In 100 Foot Hanks, Sold on Net Weights.

Size Nos.	6	7	8	9	10	12
Per pound	\$					

One dozen hanks in a package, two connected.

WIRE SASH CORD

Composed of 6 Strands and a Cotton Center, 7 Wires
to the Strand

Nos.	29	28 $\frac{1}{2}$	28	27 $\frac{1}{2}$	27	26
Diam., inches	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Breaking strength, lbs.	140	315	560	1150	1570	2040
Weight per foot, lbs.	.006	.013	.023	.053	.072	.094
Per foot	\$0.01 $\frac{1}{4}$	.01 $\frac{1}{2}$	.01 $\frac{3}{4}$	.02 $\frac{1}{4}$	.02 $\frac{3}{4}$	.03

Iron, Galvanized

Nos.	29G	28 $\frac{1}{2}$ G	28G	27 $\frac{1}{2}$ G	27G	26G
Diam., inches	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Breaking strength, lbs.	140	315	560	1150	1570	2040
Weight per foot, lbs.	.006	.013	.023	.053	.072	.094
Per foot	\$0.01 $\frac{1}{4}$	.02	.02 $\frac{1}{4}$	.03	.03 $\frac{1}{2}$	.04

Copper, Bright

Nos.	29C	28 $\frac{1}{2}$ C	28C	27 $\frac{1}{2}$ C	27C	26C
Diam., inches	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Breaking strength, lbs.	140	272	435	792	1022	1265
Weight per foot, lbs.	.007	.016	.029	.064	.087	.115
Per foot	\$0.03	.03 $\frac{1}{2}$	.04 $\frac{1}{2}$	.06	.07 $\frac{1}{2}$	.09

Annealed Cords furnished at same price as Bright.

CABLE CHAIN



Nos.	75	40	30	10	110	5	6
Width link, in.	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{1}{16}$
Tensile strength, lbs.	430	565	890	1020	1445	2250	2665
Feet on reel	500	250	250	250	250	100	100
Wt. reel, lbs.	41	38	45	50	74	42	50
Per foot	\$0.38	.12	.12	.14	.18	.32	.36

Copper

Nos.	75B	40C	30C	10C	110C
Per foot	\$0.46	.20	.24	.26	.36

No. 75B is made of brass; Nos. 75 and 75B are used as bell
hanger chain.

PULLEYS **SIDE SASH**



No. 98—Cast Iron, Japanned

Grooved for $\frac{3}{8}$ in. chain.

Size wheel, in.....	2	2½
Wt. dozen, lbs.....	4¼	6¾
Per dozen	\$2.40	3.00
One dozen in a box.		

SIDE



No. 1673—Wrought Brass Polished

Size wheel, in...	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$
Wt. dozen, lbs.....	$\frac{1}{8}$	$\frac{1}{8}$	1
Per dozen	\$2.68	2.90	3.14
Three dozen in a box, with screws.			

Cast Iron

No. 1770—Single wheel, japanned.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.68	$\frac{1}{8}$	1¼
1	.78	$\frac{1}{4}$	1½
1¼	1.06	$\frac{1}{4}$	2¼
1½	1.46	$\frac{1}{4}$	3¼
2	1.88	$\frac{1}{4}$	4½
2½	2.66	$\frac{1}{4}$	7½
3	3.88	$\frac{1}{4}$	12½
4	8.36	$\frac{1}{4}$	33½

$\frac{3}{4}$ to 1¼ in., two dozen; 2 in., one dozen; 2½ and 3 in., one-half dozen; 4 in., one-quarter dozen in a box.

Cast Iron

No. 1771—Double wheel, japanned.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.96	$\frac{1}{8}$	1½
1¼	1.12	$\frac{1}{4}$	3
1½	1.40	$\frac{1}{4}$	4¼
1¾	1.96	$\frac{1}{4}$	5½
2	2.56	$\frac{1}{4}$	7½
2½	6.28	$\frac{1}{4}$	16½

1 to 1¼ in., two dozen; 2 in., one dozen; 2½ in., one-half dozen in a box.

SWING



Cast Brass

No. 1670—Single wheel, polished.	
Size wheel, in.....	$\frac{3}{4}$
Wt. dozen, lbs.....	$\frac{1}{8}$
Per dozen	\$2.56
Three dozen in a box.	

Cast Brass

No. 1680—Cast brass, polished.	
Size wheel, in.....	$\frac{3}{4}$
Wt. dozen, lbs.....	1½
Per dozen	\$4.24
Three dozen in a box.	

TACKLE OR AWNING

Cast Brass

No. 874—Single wheel, solid eye.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$1.80	$\frac{1}{8}$	1¼
1	3.10	$\frac{1}{4}$	2½
1¼	4.00	$\frac{1}{4}$	4½
1½	6.20	$\frac{1}{4}$	6½

$\frac{3}{4}$ and 1 in., one dozen; 1¼ and 1½ in., one-half dozen in a box.

PULLEYS **TACKLE OR AWNING**



Cast Brass

No. 873—Single wheel, swivel eye.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$3.10	$\frac{1}{8}$	1½
1	3.70	$\frac{1}{4}$	2¼
1¼	5.25	$\frac{1}{4}$	4
1½	7.00	$\frac{1}{4}$	5½

$\frac{3}{4}$ and 1 in., one dozen; 1¼ and 1½ in., one-half dozen in a box.

Cast Iron, Single Wheel, Solid Eye

No. 1758—Japanned.

No. 1758½—Galvanized.



Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.42	$\frac{1}{8}$	$\frac{1}{2}$
$\frac{1}{2}$	.52	$\frac{1}{4}$	1¼
$\frac{3}{4}$	.68	$\frac{1}{4}$	1¾
1	.80	$\frac{1}{4}$	2
1¼	1.04	$\frac{1}{4}$	2½
1½	1.30	$\frac{1}{4}$	4
1¾	2.10	$\frac{1}{4}$	6¾
2	2.80	$\frac{1}{4}$	9¾
2½	5.22	$\frac{1}{4}$	17

$\frac{1}{2}$ to 1½ in., one dozen; 1¾ to 2½ in., one-half dozen in a box.

Cast Iron, Double Wheel, Solid Eye

No. 1759—Japanned.

No. 1759½—Galvanized.



Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$1.00	$\frac{1}{8}$	2½
$\frac{1}{2}$	1.30	$\frac{1}{4}$	2¾
1¼	1.68	$\frac{1}{4}$	3¾
1½	2.40	$\frac{1}{4}$	7½
1¾	3.90	$\frac{1}{4}$	12¾
2	4.32	$\frac{1}{4}$	16½
2½	8.36	$\frac{1}{4}$	26¾

$\frac{3}{4}$ to 1½ in., one dozen; 1¾ to 2½ in., one-half dozen in a box.

Cast Iron, Single Wheel, Swivel Eye

No. 1768—Japanned.

No. 1768½—Galvanized.



Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.50	$\frac{1}{8}$	$\frac{1}{2}$
$\frac{1}{2}$	.64	$\frac{1}{4}$	1½
$\frac{3}{4}$	.78	$\frac{1}{4}$	1½
1	.90	$\frac{1}{4}$	2
1¼	1.14	$\frac{1}{4}$	3
1½	1.72	$\frac{1}{4}$	4¾
1¾	2.92	$\frac{1}{4}$	6¾
2	3.88	$\frac{1}{4}$	7¾

$\frac{1}{2}$ to 1½ in., one dozen; 1¾ in. and 2 in., one-half dozen in a box.

Cast Iron, Double Wheel, Swivel Eye

No. 1769—Japanned.

No. 1769½—Galvanized.



Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.74	$\frac{1}{8}$	1¼
$\frac{1}{2}$	.88	$\frac{1}{4}$	1¾
$\frac{3}{4}$	1.14	$\frac{1}{4}$	2¾
1	1.44	$\frac{1}{4}$	3
1¼	1.82	$\frac{1}{4}$	4¾
1½	2.64	$\frac{1}{4}$	6¾
1¾	4.44	$\frac{1}{4}$	10¾
2	4.86	$\frac{1}{4}$	13¾

$\frac{1}{2}$ to 1½ in., one dozen; 1¾ and 2 in., one-half dozen in a box.

PULLEYS **SCREW**



No. 1651—Single wheel, polished.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{2}$	\$2.20	$\frac{1}{8}$	$\frac{1}{2}$
$\frac{3}{4}$	2.57	$\frac{1}{4}$	1
1	2.86	$\frac{1}{4}$	1¼
1½	3.42	$\frac{1}{4}$	1¾

One dozen in a box.

Cast Iron

No. 1658—Single wheel, japanned.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.46	$\frac{1}{8}$	$\frac{1}{2}$
1	.54	$\frac{1}{4}$	$\frac{1}{2}$
1¼	.66	$\frac{1}{4}$	1¼
1½	.86	$\frac{1}{4}$	1½
1¾	.96	$\frac{1}{4}$	1¾
2	1.26	$\frac{1}{4}$	2¼
2½	2.00	$\frac{1}{4}$	4¼
3	2.16	$\frac{1}{4}$	6¼
4	6.06	$\frac{1}{4}$	17¼



$\frac{3}{4}$ to 2 in., two dozen; 2½ to 4 in., one dozen in a box.

Cast Iron, Double Wheel, Japanned



No. 1726—1¼ inch wheels, for $\frac{1}{8}$ in. rope; wt. per dozen 4 lbs.....\$2.42
One dozen in a box.

Cast Iron

No. 1662—Single wheel, japanned.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{4}$	\$0.86	$\frac{1}{8}$	1¾
1¼	1.02	$\frac{1}{4}$	2¾
1½	1.40	$\frac{1}{4}$	3¾
2	1.70	$\frac{1}{4}$	4¾
2½	2.42	$\frac{1}{4}$	7½
3	2.92	$\frac{1}{4}$	9¾
4	8.60	$\frac{1}{4}$	22½



1¼ to 3 in., one dozen; 4 in., one-third dozen in a box.

Cast Iron

No. 1663—Single wheel, japanned.

Wheel, in.	Per dozen	For rope, in.	Wt. dozen, lbs.
$\frac{1}{2}$	\$1.02	$\frac{1}{4}$	2¾
2	1.70	$\frac{1}{4}$	4

One dozen in a box.



Cast Iron, Single Wheel, Japanned

No. 1664—2 in. wheel, 2 in. shank, for $\frac{1}{8}$ in. rope; wt. per doz. 3½ lbs..\$2.30
One dozen in a box.



DOOR PULLS



Wrought Steel, Japanned

Nos.	Per dozen	Length in.	Width in.	Weight lbs.
482-1J	\$1.80	5	1 1/4	1 1/2
482-2J	2.00	5 1/2	1 1/2	2 1/2
482-3J	2.10	6 1/2	1 3/4	2 3/4
482-4J	6.40	7 1/2	2 1/4	5 1/4

Nos. 482-1J to 482-3J, one dozen; No. 482-4J, one-half dozen in a box, with screws.



Wrought Steel, Japanned

Nos.	Per dozen	Length in.	Width in.	Weight lbs.
1257-1J	\$1.20	5 1/2	1 1/2	3/4
1257-2J	1.70	6 1/2	1 3/4	1 1/2
1257-3J	2.00	7 1/2	1 1/2	2 1/4
1257-4J	2.35	9	2 1/4	5 1/4

Nos. 1257-1J to 1257-3J, one dozen; No. 1257-4J, one-half dozen in a box.

Cast Bronze

Length 5 1/4 inches.

Per dozen

No. B1791 1/2 — Polished bronze	\$6.40
No. R1791 1/2 — Antique copper	6.40
No. EA1791 1/2 — Dull brass	6.40
No. A1791 1/2 — Polished brass	6.40
No. SKA1791 1/2 — Sanded brass	7.00
No. E1791 1/2 — Nickel plated	7.00
No. F1791 1/2 — Rustless iron	4.80

Weight per dozen 2 1/4 pounds.
One dozen in a box, with screws.

Cast Bronze

Length 3 1/2 inches.

Per dozen

No. B1697—Polished bronze; wt. per dozen 5 1/2 lb.	\$3.20
Three dozen in a box, with screws.	

Cast Bronze

Length 4 3/4 inches.

Per dozen

No. B1698—Polished bronze; wt. per dozen 1 1/4 lbs.	\$4.45
One dozen in a box, with screws.	

DOOR PULLS



Wrought Steel

Length 4 1/2 inches.

Per dozen

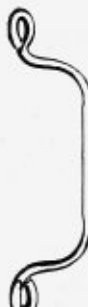
No. 6243—Antique copper	\$0.60
No. 6263—Dull brass	.60

Wrought Brass

Length 4 1/2 inches.

Per dozen

No. 6273—Dull brass	\$1.00
Weight per dozen 1/2 pound.	
Three dozen in a box, with screws.	



Steel Wire

Length 4 1/2 inches.

Per gross

No. 34 1/2—Japanned	\$3.60
No. 534 1/2—Brass plated	3.60

Weight per gross 7 3/4 pounds.
One-half gross in a box.

FLUSH DOOR PULLS



Cast Iron

Size 3 3/4 x 2 1/2 in.

Per dozen

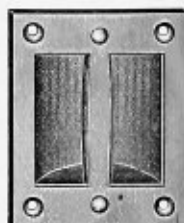
No. 1100—Japanned; wt. per dozen 4 1/2 lbs.	\$1.80
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Cast Bronze

Size 3 3/4 x 2 1/2 in.

Per dozen

No. A01100—Polished brass; wt. per dozen 5 lbs.	\$14.70
One dozen in a box; iron without screws, bronze with screws.	



Cast Iron

Size 5 x 4 in.

Per dozen

No. 2100—Japanned; wt. per doz. 16 1/4 lbs.	\$4.50
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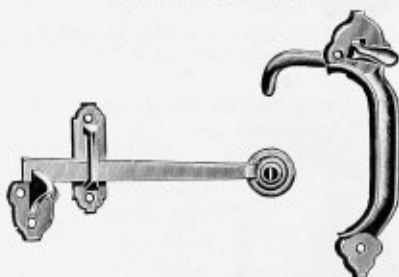
Cast Bronze

Size 5 x 4 in.

Per dozen

No. A02100—Polished brass; wt. per doz. 19 1/4 lbs.	\$40.00
One-half dozen in a box; iron without screws, bronze with screws.	

THUMB LATCHES



Cast Iron, Japanned

Per dozen

No. 36—Handle 9 1/2 in., bar 9 in., thumb piece 5 1/2 in.; wt. per doz. 19 1/4 lbs.	\$4.20
One-half dozen in a box.	

THUMB LATCHES

Wrought Steel Japanned

With padlock attachment.

No. 1260-2J	
Handle, in.	6 3/4
Wt. doz., lbs.	5 1/2
Per dozen	\$3.85

No. 1260-3J	
Handle, in.	7 1/2
Wt. doz., lbs.	8 3/4
Per dozen	\$5.35

No. 1260-4J	
Handle, in.	8 3/4
Wt. doz., lbs.	17 3/4
Per dozen	\$10.15

One in a box, with screws.



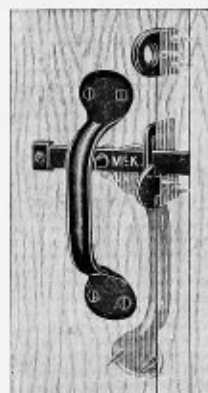
Wrought Steel, Japanned

Handle for each side of door. Complete with one pair of padlock eyes.

Per dozen

No. 1945—Thumb piece handle 7 3/4 in., large handle 8 3/4 in., bar 6 3/4 in.; wt. per doz. 21 lbs.	\$19.50
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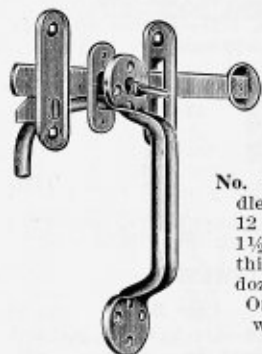
One in a box, with screws.



Extra Heavy, Wrought Steel, Japanned

Per dozen

No. 1253-J—Handle 10 1/2 in., bar 12 in., for doors 1 1/2 to 2 1/4 in. thick; wt. per doz. 37 lbs.	\$20.90
One in a box, with screws.	

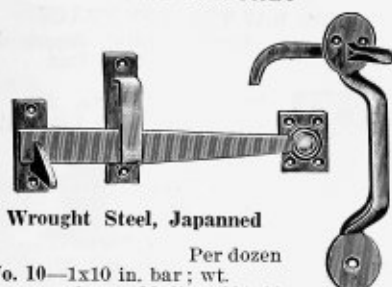


Extra Heavy Wrought Steel, Japanned

Per dozen

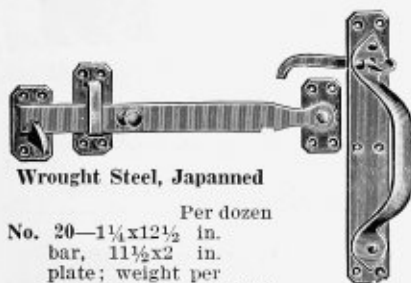
No. 1264-J—Plates 14 1/2 x 2 3/4 in., handle 10 1/2 in., bar 12 in., for doors 1 1/2 to 2 1/4 in. thick; wt. per dozen 81 lbs.	\$39.20
One in a box with screws.	

THUMB LATCHES



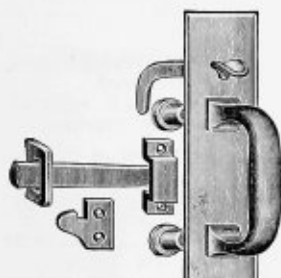
Wrought Steel, Japanned

Per dozen
No. 10—1x10 in. bar; wt.
per dozen 38 lbs..\$21.00
One-third dozen in a box.



Wrought Steel, Japanned

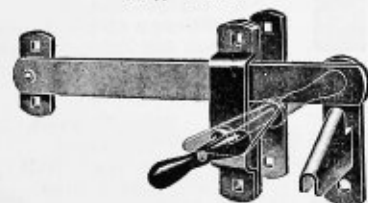
Per dozen
No. 20—1 1/4x12 1/2 in.
bar, 1 1/4x2 in.
plate; weight per
dozen 48 lbs...\$42.00
One-sixth dozen in a box.



Cast
Iron,
Japanned

Per dozen
No. 01136—10x2 1/2 in. plate for
doors up to 2 3/4 in. thick; wt.
per dozen 54 lbs.....\$12.00
One-quarter dozen in a box, with screws.

SWINGING DOOR LATCHES R-W "LION"

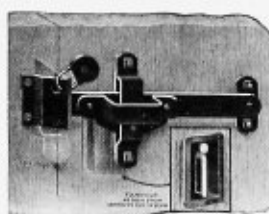


Malleable Iron, Japanned

Nos.	Per dozen	Latch bar, in.	For doors, in.	Wt. doz., lbs.
225-1	\$9.90	1 x 10	1 3/4 to 2 1/2	36
225-2	13.20	1 1/4 x 12	1 3/4 to 2 1/2	42
225-3	16.20	1 1/2 x 14	1 3/4 to 2 1/2	72
225-4	21.00	1 3/4 x 14	1 3/4 to 3	84

Nos. 225-1 and 225-2, one dozen; others,
one-twelfth dozen in a box, with screws.

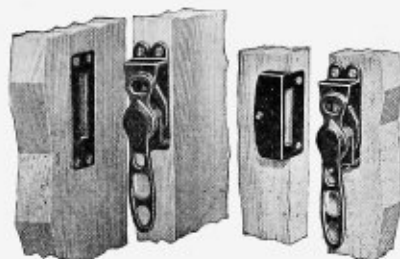
SLIDING DOOR LATCHES



Wrought
Steel,
Japanned
Reversible
for right or
left hand
doors. Flush
cup for op-
posite side of
door. Oper-
ated from ei-
ther side.

Per dozen
No. 152—Latch bar 1 1/2x14 in., flush
cup 3 3/8x2 1/4 in., for doors 1 3/4
to 2 3/4 in. thick; wt. per dozen
66 lbs.\$15.00
One in a box.

SLIDING DOOR LOCKS R-W "TITITE"



No. 416-1

No. 416-2

Malleable Iron, Black Enameled

Draws the door to which it is attached
firmly up against the jamb or other door.
Can be locked with a padlock. When lock-
ed all screws are inaccessible.

For Parallel Doors
With flush keeper.

Each
No. 416-1—For doors 1 3/4 in. or more
in thickness; wt. each 1 1/2 lbs..\$1.25

For Single Sliding Doors of Sliding Doors
in Pairs
With surface keeper.

Each
No. 416-2—For doors of any thick-
ness; wt. each 2 lbs.....\$1.25

One in a box, with screws.

R-W "FAULTLESS"



For Single and Double
Sliding Doors

Also suitable for right
angle doors. A combina-
tion lock, latch and
flush door pull. Operates
from either side of door.

Latches automatically
when closed.
28 key changes.

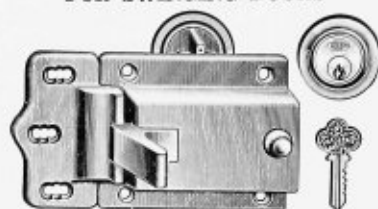
Wrought Steel and Malleable Iron

Case 4 3/4x3 3/4x7 1/2 in. case, for doors, 1 3/4
in. thick or thicker.

Per dozen
No. 525—Dead black finish; wt. per
dozen 45 lbs.....\$37.20

One in a box, with screws.

GARAGE DOOR LOCKS FOR SWINGING DOORS



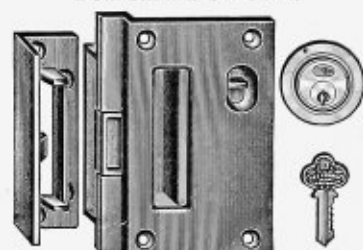
Cast Iron Case, Bolt and Strike

Case—4 1/2x4 1/2 in., 3 in. backset.
For Doors—1 3/4 to 2 3/4 in. thick, right or
left hand, opening out.
Operated—By key from outside and thumb
latch inside. Bolt may be held back
by stop.

Each
No. 200—Dead black; weight each
2 3/4 lbs.\$3.90

One in a box, with screws.

FOR SLIDING DOORS



Cast Iron Case, Malleable Iron Bolt

Case—5 5/8x4 in.
For Doors—1 1/2 to 3 in. thick, right or left
hand.

Operated—By key from outside and lever
inside. Bolt may be held back by stop.
Each

No. 210—Dead black; wt. each 2 3/4
lbs.\$4.40

One in a box, with screws.

RIM GARAGE LOCK SETS



For Right or Left
Hand Doors Opening
In or Out

Lock — 4 1/4x3 3/4x1 1/4
in. japanned iron
case, 2 1/2 in. back-
set, cast brass
easy-spring latch
bolt, reversible; 3
nickel silver keys.

Operated — By
thumb latch from
either side when
not deadlocked.
By key from out-
side and thumb
slide inside when
deadlocked. Bolt
becomes a dead
bolt when locked.
Handle—One, 8 1/2x
2 1/4 in.

Cast and Malleable Iron

Per set
No. 1050-J—Japanned; wt. per set
4 lbs.\$6.00

One set in a box, with screws.

WAREHOUSE DOOR HANGERS

R-W, "ECONOMY"

Lateral and
Vertical Ad-
justments

Steel roller bearings, 3 in. diameter steel wheels; apron 7½ in. long, 4 in. wide, ½ in. thick, punched for ⅝ in. bolts; for doors weighing up to 600 pounds.

Top of door to bottom of track 1½ to 2½ in., bottom of track to center of hole in bracket, 4½ in.

Without Brackets: for Use in
No. 232 Track

Black Enamel Finish

Per pair
No. 29V-1—For doors 1¾ to 2 in. thick\$4.60
No. 29V-2—For doors 2¼ to 2½ in. thick 4.60

Galvanized

Per pair
No. 29V-1G—For doors 1¾ to 2 in. thick\$5.60
No. 29V-2G—For doors 2¼ to 2½ in. thick 5.60

Weight per pair 14 pounds.

One pair in a box, with carriage and stove bolts.

BARN DOOR HANGERS

"NONE BETTER"

Non-Adjustable

Steel roller bearings, black japanned. For use on any flat rail or track.

Per dozen pairs

No. 1900-1—3½ in. semi-steel wheel, 11x5½ in. pendant; wt. per dozen pairs 65 lbs. \$14.00

No. 1900-2—3¾ in. semi-steel wheel, 12x6 in. pendant; wt. per dozen pairs 93 lbs. 18.00

One dozen pairs in a crate.

KING CHARM

Hinge Joint

A special guard or lug on the inside of the wheel covering prevents hanger from being thrown off the track.

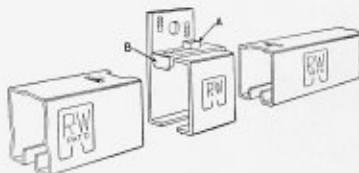
Black japanned finish. For use on No. 8100 track.

Per dozen pairs

No. 1902—3¾ in. diameter, gray iron wheel; apron 5 in. long, 2½ in. wide, ½ in. thick, punched for ⅝ in. bolts; for doors 1¾ in. thick; wt. per dozen pairs 80 lbs.\$20.40
One-half dozen pairs in a carton.

SLIDING DOOR TRACK

R-W TROLLEY

Wrought Steel, Black Enameled;
Without Brackets

Perforated at ends to receive lock joint brackets which bind and lock ends of track securely together.

Furnished in lengths up to 12 feet.

Per foot
No. 31—16 gauge, 2¼x1¾ in. inside; wt. per foot 1½ lbs.\$0.25
No. 232—14 gauge, 3¼x2½ in. inside; wt. per foot 2¼ lbs.45
Open stock.



Wrought Steel, Black Enameled; Curved
Perforated at ends to receive lock joint brackets which bind and lock ends of track securely together.

Each

No. 31—24 in. radius, 90° curve; 16 gauge, 2¼x1¾ in. inside; wt. each 5 lbs.\$4.75

Per foot

No. 31—Curved track (any length) \$1.60

No. 232—Curved track (any length) 2.40

Note—Curves cannot be satisfactorily bent to a shorter radius than two feet.

FLAT RAIL



Wrought Steel, Japanned

In 4, 6, 8 and 10 ft. lengths.

Per 100 feet

No. 8100—1¼ in. wide, ½ in. thick;

wt. per 100 feet 100 lbs.\$13.00

Open stock.

TRACK BRACKETS

FOR R-W TROLLEY TRACK



No. 1

Wrought Steel,
Japanned



No. 39

Side Wall Center

Each
No. 1x31—For No. 31 track; wt. each ¾ lb.\$0.21
No. 1x232—For No. 232 track; wt. each 2 lbs.45
No. 39x31—Lock-joint; for No. 31 track; wt. each 1¼ lbs.31
No. 39x232—Lock-joint; for No. 232 track; wt. each 3¼ lbs.60
Open stock.

TRACK BRACKETS

FOR R-W TROLLEY TRACK

Wrought Steel, Japanned
Side Wall End

Each

No. 2x31—For No. 31 track; wt. each 1 lb. \$0.21

No. 2x232—For No. 232 track; wt. each 3 lbs.45

Open stock.



No. 22



No. 23

Wrought
Steel,
Japanned

Double Side Wall

Each

No. 22x31—For No. 31 track; wt. each 3 lbs.\$0.66

No. 22x232—For No. 232 track; wt. each 6¼ lbs. 1.20

Double Side Wall End

Each

No. 23x31—For No. 31 track; wt. each 3 lbs.\$0.66

No. 23x232—For No. 232 track; wt. each 6½ lbs. 1.20

Open stock.

Lock Joint; Wrought Steel, Japanned

Bind and lock ends of track securely together.

Double Side Wall Center

Each

No. 229x31—For No. 31 track; wt. each 3¼ lbs.\$0.90

No. 229x232—For No. 232 track; wt. each 6¼ lbs. 1.60

Open stock.

Wrought Steel, Japanned

Side Wall Center Stop

Each

No. 12x31—For No. 31 track; wt. each 2 lbs.\$0.66

No. 12x232—For No. 232 track; wt. each 4¼ lbs. 1.05

Open stock.

Wrought Steel, Japanned

Side Wall Half Center Stop

Each

No. 13x31—For No. 31 track; wt. each 7¼ lbs.\$1.35

No. 13x232—For No. 232 track; wt. each 12¼ lbs. 2.15

Open stock.

Wrought Steel, Japanned

Side Wall Half Center Stop

Each

No. 13x31—For No. 31 track; wt. each 7¼ lbs.\$1.35

No. 13x232—For No. 232 track; wt. each 12¼ lbs. 2.15

Open stock.

Wrought Steel, Japanned

Side Wall Half Center Stop

Each

No. 13x31—For No. 31 track; wt. each 7¼ lbs.\$1.35

No. 13x232—For No. 232 track; wt. each 12¼ lbs. 2.15

Open stock.

Wrought Steel, Japanned

Side Wall Half Center Stop

Each

No. 13x31—For No. 31 track; wt. each 7¼ lbs.\$1.35

No. 13x232—For No. 232 track; wt. each 12¼ lbs. 2.15

Open stock.

Wrought Steel, Japanned

Side Wall Half Center Stop

Each

No. 13x31—For No. 31 track; wt. each 7¼ lbs.\$1.35

No. 13x232—For No. 232 track; wt. each 12¼ lbs. 2.15

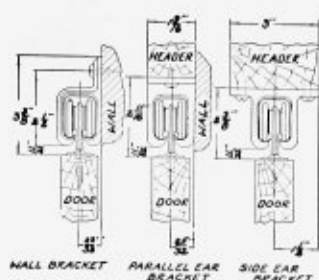
Open stock.

COBURN TROLLEY DOOR HANGERS

FOR PORCH SASH AND SCREENS, CHINA CLOSETS
AND WARDROBE DOORS



No. 99 Hanger



Machined Iron or Fibre Wheels, Roller Bearings
For loads up to 20 pounds.

No. 99 —Iron Wheels	Each	\$0.50
No. 99-F—Fibre Wheels	Each	.60
For use with No. 0 Track Only.		
Weight each $\frac{1}{4}$ pound.		
Packed as ordered with screws.		

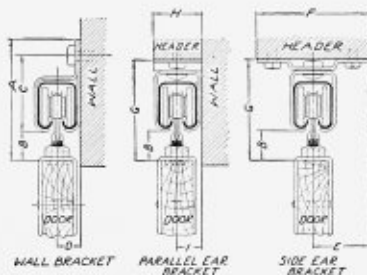
Machined Iron or Fibre Wheels, Roller Bearings, Vertical Adjustment
For loads up to 40 pounds.

No. 98 —Iron wheels	Each	\$0.80
No. 98-F—Fibre Wheels	Each	1.00
For use with No. 0 track only.		
Weight each $\frac{3}{4}$ pound.		
Packed as ordered, with screws.		

FOR USE WHERE DOORS SLIDE INTO POCKET OR
PARALLEL TO EACH OTHER



No. 150



Machined Iron Wheels, Roller Bearing, Lock Nut
Vertical Adjustment Only

Nos.	150A	150B	150C
For track, Nos.	1	2	4
For doors, lbs.	300	500	1000
Min. thick. of doors, in.	1 $\frac{3}{8}$	1 $\frac{3}{8}$	2
Wt. per pair, lbs.	5	7	11
Per pair	\$3.50	4.25	6.75

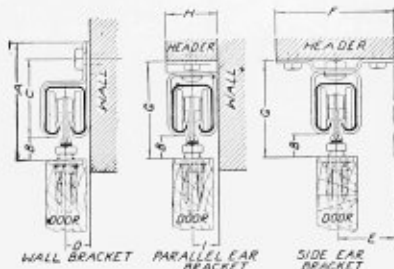
HEAD ROOM TABLE FOR No. 150 HANGER

Nos.	A		B		C	D
	Min.	Max.	Min.	Max.		
150A	5 $\frac{1}{4}$	7 $\frac{1}{8}$	1	2 $\frac{3}{8}$	3 $\frac{1}{2}$	1 $\frac{1}{8}$
150B	6 $\frac{1}{4}$	7 $\frac{7}{8}$	$\frac{3}{4}$	2 $\frac{3}{8}$	4 $\frac{1}{4}$	1 $\frac{1}{8}$
150C	7 $\frac{1}{4}$	9	$\frac{7}{8}$	2 $\frac{3}{8}$	5 $\frac{1}{2}$	1 $\frac{1}{8}$
Nos.	E		F		H	I
	Min.	Max.	Min.	Max.		
150A	2 $\frac{5}{8}$	5 $\frac{1}{4}$	4 $\frac{1}{4}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	1 $\frac{1}{8}$
150B	2 $\frac{5}{8}$	5 $\frac{1}{4}$	5 $\frac{1}{8}$	6 $\frac{1}{8}$	2 $\frac{1}{4}$	1 $\frac{1}{8}$
150C	3 $\frac{3}{8}$	6 $\frac{3}{8}$	6 $\frac{1}{8}$	7 $\frac{7}{8}$	3 $\frac{1}{4}$	1 $\frac{1}{8}$

One pair in a box, with screws.

COBURN TROLLEY DOOR HANGERS

FOR USE WHERE DOORS SLIDE TO SIDE ON SINGLE
RUN OF TRACK



Machined Iron Wheels, Roller Bearing

Steel pendant, cast iron petticoat, lateral adjustment only.

Nos.	120A	120B	120C
For track, Nos.	1	2	4
For doors, lbs.	400	600	1000
Thickness of door, in.	1 $\frac{1}{4}$ to 1 $\frac{3}{4}$	1 $\frac{3}{4}$ to 2 $\frac{1}{2}$	2 $\frac{1}{4}$ to 3 $\frac{1}{2}$
Weight per pair, lbs.	7	10	20
Weight per set, lbs.	12 $\frac{1}{2}$	16	40
Per pair	\$3.25	4.00	6.50

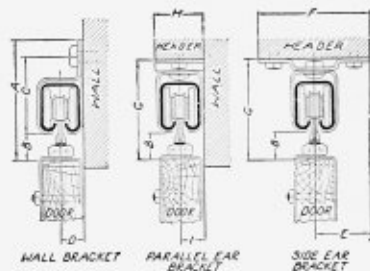
Note—A set of door hangers contains two hangers, one pair of end wall brackets and one open wall bracket.

HEAD ROOM TABLE FOR No. 120 HANGER

Nos.	A	B	C	D	E	F	G	H	I
120A	5 $\frac{1}{4}$	1 $\frac{7}{8}$	3 $\frac{1}{2}$	1 $\frac{1}{8}$	2 $\frac{5}{8}$	5 $\frac{1}{4}$	4 $\frac{1}{4}$	2 $\frac{1}{4}$	1 $\frac{1}{8}$
120B	6 $\frac{1}{2}$	1	4 $\frac{1}{4}$	1 $\frac{1}{8}$	2 $\frac{5}{8}$	5 $\frac{1}{4}$	5 $\frac{1}{8}$	2 $\frac{1}{4}$	1 $\frac{1}{8}$
120C	7 $\frac{1}{2}$	1 $\frac{3}{8}$	5 $\frac{1}{4}$	1 $\frac{1}{8}$	3 $\frac{3}{8}$	6 $\frac{3}{8}$	6 $\frac{3}{8}$	3 $\frac{1}{4}$	1 $\frac{1}{8}$

One pair or one set in a box, with screws and bolts.

FOR DOORS SLIDING ON DOUBLE OR TRIPLE
RUNS OF TRACK



Machined Iron Wheels, Roller Bearing

Steel pendant and petticoat, lateral and vertical adjustment.

Nos.	137A	137B	137C
For track, Nos.	1	2	4
For doors, lbs.	400	600	1000
Thickness of door, in.	1 $\frac{1}{4}$ to 1 $\frac{3}{4}$	1 $\frac{3}{4}$ to 2 $\frac{1}{4}$	2 to 3 $\frac{1}{4}$
Weight per pair, lbs.	7	9	21
Per pair	\$3.50	4.25	6.75

HEAD ROOM TABLE FOR No. 137 HANGER

Nos.	A		B		C	D
	Min.	Max.	Min.	Max.		
137A	5 $\frac{1}{4}$	7 $\frac{7}{8}$	1 $\frac{7}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{2}$	1 $\frac{1}{8}$
137B	6 $\frac{1}{4}$	8 $\frac{3}{8}$	1	2 $\frac{5}{8}$	4 $\frac{1}{4}$	1 $\frac{1}{8}$
137C	7 $\frac{1}{4}$	9 $\frac{3}{8}$	1 $\frac{3}{4}$	3	5 $\frac{1}{2}$	1 $\frac{1}{8}$
Nos.	E		F		H	I
	Min.	Max.	Min.	Max.		
137A	2 $\frac{5}{8}$	5 $\frac{1}{4}$	4 $\frac{1}{4}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	1 $\frac{1}{8}$
137B	2 $\frac{5}{8}$	5 $\frac{1}{4}$	5 $\frac{1}{8}$	7 $\frac{7}{8}$	2 $\frac{1}{4}$	1 $\frac{1}{8}$
137C	3 $\frac{3}{8}$	6 $\frac{3}{8}$	6 $\frac{1}{8}$	8 $\frac{1}{4}$	3 $\frac{1}{4}$	1 $\frac{1}{8}$

One pair in a box, with bolts.

SLIDING DOOR TRACK

COBURN TROLLEY



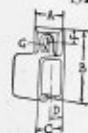
Wrought Steel,
Dead Black Finish

No.	0
Gauge	20
Width, in.	1
Depth, in.	1 1/2
Wt. foot, lbs.	5 1/2
Per foot	\$0.20

Nos.	1	2	4
Gauge	16	16	13
Width, in.	1 1/2	1 1/2	2 1/2
Depth, in.	2	3 1/4	3 3/4
Wt. foot, lbs.	1 1/2	2	3 3/4
Per foot	\$0.22	.40	.65

No. 0 furnished in lengths of 2 and 3 ft.;
Nos. 1 and 2 in lengths of 4, 5, 6, 8 and
10 ft.; No. 4 in lengths of 4, 5, 6
and 8 ft.

TRACK BRACKETS

FOR COBURN TROLLEY TRACK
SINGLE WALL BRACKETS

Cast Iron

For No. 0 Track			
Nos.	B01	B01R	B01L
Style	Center	Right	Left
Each	\$0.20	.20	.20
Weight each	3/4 pound.		

For No. 1 Track

Nos.	B11	B11R	B11L
Style	Center	Right	Left
Each	\$0.30	.30	.30

Weight each 1 1/2 pounds.

For No. 2 Track

Nos.	B21	B21R	B21L
Style	Center	Right	Left
Each	\$0.50	.50	.50

Weight each 2 1/2 pounds.

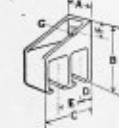
For No. 4 Track

Nos.	B41	B41R	B41L
Style	Center	Right	Left
Each	\$1.60	1.60	1.60

Weight each 7 3/4 pounds.

DOUBLE WALL BRACKETS

Cast Iron



For No. 1 Track			
Nos.	B112	B112R	B112L
Style	Center	Right	Left
Each	\$0.70	.70	.70
Weight each	3 3/4 pounds.		

For No. 2 Track

Nos.	B212	B212R	B212L
Style	Center	Right	Left
Each	\$1.20	1.20	1.20

Weight each 5 1/2 pounds.

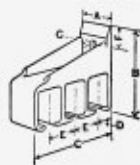
For No. 4 Track

Nos.	B412	B412R	B412L
Style	Center	Right	Left
Each	\$2.40	2.40	2.40

Weight each 11 3/4 pounds.

All above, open stock.

TRACK BRACKETS

FOR COBURN TROLLEY TRACK
TRIPLE WALL BRACKET

For No. 1 Track

Nos.	B113	B113R	B113L
Style	Center	Right	Left
Each	\$1.10	1.10	1.10
Weight each	5 3/4 pounds.		

For No. 2 Track

Nos.	B213	B213R	B213L
Style	Center	Right	Left
Each	\$1.60	1.60	1.60
Weight each	7 3/4 pounds.		

For No. 4 Track

Nos.	B413	B413R	B413L
Style	Center	Right	Left
Each	\$3.00	3.00	3.00
Weight each	14 3/4 pounds.		

SWIVEL WALL BRACKETS

Forged Steel



Nos.	B19F	B29F
For track Nos.	1	2
Wt. each, lbs.	1 1/4	2
Each	\$0.40	.60

Nos.	B49F
For track, No.	4
Wt. each, lbs.	4 1/2
Each	\$1.30

SINGLE PARALLEL EAR BRACKETS

Cast Iron



For No. 0 Track

Nos.	B02	B02E
Style	Center	End
Each	\$0.20	.20
Weight each	3/4 pound.	

For No. 1 Track

Nos.	B12	B12E
Style	Center	End
Each	\$0.35	.35
Weight each	1 3/4 pounds.	

For No. 2 Track

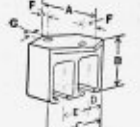
Nos.	B22	B22E
Style	Center	End
Each	\$0.50	.50
Weight each	2 1/2 pounds.	

For No. 4 Track

Nos.	B42	B42E
Style	Center	End
Each	\$1.35	1.35
Weight each	6 1/4 pounds.	

DOUBLE PARALLEL EAR BRACKETS

Cast Iron



For No. 1 Track

Nos.	B122	B122E
Style	Center	End
Each	\$1.00	1.00
Weight each	4 1/2 pounds.	

For No. 2 Track

Nos.	B222	B222E
Style	Center	End
Each	\$1.25	1.25
Weight each	5 1/2 pounds.	

For No. 4 Track

Nos.	B422	B422E
Style	Center	End
Each	\$3.25	3.25
Weight each	15 1/2 pounds.	

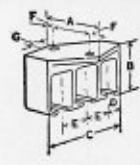
All above, open stock.

TRACK BRACKETS

FOR COBURN TROLLEY TRACK
TRIPLE PARALLEL EAR BRACKETS

Cast Iron

For No. 1 Track



Nos.	B123	B123E
Style	Center	End
Each	\$1.35	1.35
Weight each	6 1/4 pounds.	

For No. 2 Track

Nos.	B223	B223E
Style	Center	End
Each	\$1.50	1.50
Weight each	7 1/4 pounds.	

For No. 4 Track

Nos.	B423	B423E
Style	Center	End
Each	\$4.00	4.00
Weight each	19 1/2 pounds.	

SIDE EAR BRACKETS

Cast Iron

For No. 0 Track



Nos.	B03	B03E
Style	Center	End
Each	\$0.20	.20
Weight each	3/4 pound.	

For No. 1 Track

Nos.	B13	B13E
Style	Center	End
Each	\$0.35	.35
Weight each	1 3/4 pounds.	

For No. 2 Track

Nos.	B23	B23E
Style	Center	End
Each	\$0.50	.50
Weight each	2 1/4 pounds.	

For No. 4 Track

Nos.	B43	B43E
Style	Center	End
Each	\$2.25	2.25
Weight each	10 3/4 pounds.	

ADJUSTABLE WALL BRACKETS

Forged Steel

With 5 in. Extension



For track, Nos.	1	2
Wt. each, lbs.	2 3/4	3 1/4
Each	\$1.05	1.30

With 7 1/2 in. Extension

For track, Nos.	1	2	4
Wt. each, lbs.	3	3 1/2	9 1/2
Each	\$1.20	1.50	3.10

With 11 in. Extension

For track, Nos.	1	2	4
Wt. each, lbs.	4 1/4	4 3/4	11
Each	\$1.30	1.75	3.40

CENTER STOP BRACKETS

Cast Iron



Nos.	B17	B27	B47
For track, Nos.	1	2	4
Wt. ea., lbs.	2 1/2	3	9 1/4
Each	\$0.50	.60	2.00

All above, open stock.

GARAGE DOOR HARDWARE SETS **R-W SLIDETITE**

Slidetite Garage Door Sets meet the demand for garage hardware that will allow hinged doors to fold and slide by means of an overhead hanger, inside of the building, requiring only minimum space. Slidetite equipped doors fit perfectly tight, are weather-proof, cannot sag and will not warp.

Hangers have vertical adjustment, ball bearing swivel pendants, steel wheels and strong apron.

Each Slidetite set consists of such quantities of steel trolley track, roller bearing hangers, door locking bolts, track brackets, floor guides, bow handles and tie rods as are necessary to operate the number of doors for which the set is intended.



No. 435-1
Hanger



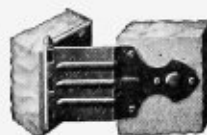
No. 435-C
Center
Bracket



No. 435-I Intermediate
Bracket



No. 435-E—End Bracket



No. 311 Half Surface
Offset Hinge

Two Door Sets

For doors opening in with jamb hinges as shown in illustrations. Two doors fold one way. For openings up to 8 ft. wide.

No. 435-A2-31—Complete as enumerated below; wt. per set 49 lbs.\$9.90

Contents of Set

Same as No. 435-A3-31 listed below, but without butts for service door.

Three Door Sets

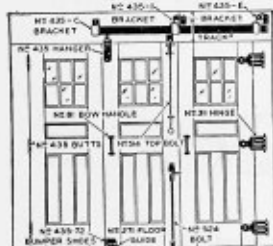
For doors opening in with butts on single door. Two doors are hinged together and to one of the side jambs to slide and fold. The service door swings independently from the opposite jamb. For openings up to 9 ft. wide.

No. 435-A3-31—Complete as enumerated below; wt. per set 49 lbs.\$9.90

Contents of Set

- 1 No. 435-1 hanger
- 7 ft. No. 31 track
- 1 No. 435-C center bracket
- 1 No. 435-I intermediate bracket
- 1 No. 435-E end bracket
- 1½ pairs No. 311 half surface hinges, 4x8½ in.
- 1½ pairs surface hinges, 2½x4 in.

- 1½ pairs butts, 4x4 in.
- 1 floor guide
- 2 bumper shoes
- 2 bow handles
- 1 top chain bolt
- 1 bottom cane bolt



Four Door Sets—One Track

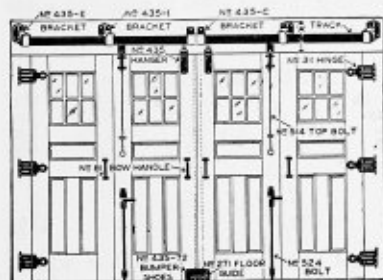
For doors opening in with butts in single door. Three doors fold one way with service door swinging independently from the opposite jamb. For openings up to 12 ft. wide.

No. 435-A4-31—Complete as enumerated below; wt. per set 56 lbs.\$12.90

Contents of Set

- 1 No. 435-1 hanger
- 7 ft. No. 31 track
- 1 No. 435-C center bracket
- 1 No. 435-I intermediate bracket
- 1 No. 435-E end bracket
- 1½ prs. No. 311 half surface hinges, 4x8½ in.
- 3 pairs surface hinges, 2½x4 in.

- 1½ pairs butts, 4x4 in.
- 1 door holder
- 2 bow handles
- 1 tie rod
- 2 top chain bolts
- 2 bottom cane bolts



Four Door Sets—Two Tracks

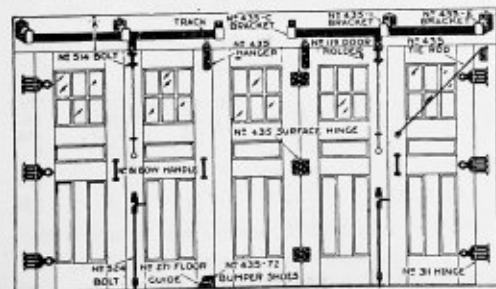
For doors opening in with offset hinges on both jambs. Two doors fold each way. For openings up to 12 ft. wide.

No. 435-A4½-31—Complete as enumerated below; wt. per set 84 lbs.\$18.60

Contents of Set

- 2 No. 435-1 hangers
- 14 ft. No. 31 track
- 2 No. 435-C center brackets
- 2 No. 435-I intermediate brackets
- 2 No. 435-E end brackets
- 3 Pairs No. 311 half surface hinges, 4x8½ in.

- 3 pairs surface hinges
- 1 floor guide
- 4 bumper shoes
- 4 bow handles
- 2 top chain bolts
- 2 bottom cane bolts



Five Door Sets—Two Tracks

For doors opening in with offset hinges on both jambs. Two doors folding each way with the center door hinged to one of the pairs and acting as a service door. For openings up to 15 ft. wide.

No. 435-A5-31—Complete as enumerated below; wt. per set 90 lbs.\$20.70

Contents of Set

- 2 No. 435-1 hangers
- 14 ft. No. 31 track
- 2 No. 435-C center brackets
- 2 No. 435-I intermediate brackets
- 2 No. 435-E end brackets
- 3 pairs No. 311 half surface hinges, 4x8½ in.

- 1 floor guide
- 2 bumper shoes
- 1 door holder
- 3 bow handles
- 1 tie rod
- 2 top chain bolts
- 2 bottom cane bolts

CANE BOTTOM BOLTS



Wrought Steel, Black
Enameled

Drops by gravity when lifted out of socket. Bottom keeper has oval hole which allows for shrinking or swelling of door.

Each
No. 524— $\frac{5}{8}$ x 18 in.; wt.
each 3 lbs.\$0.75
Open stock.

TOP BOLTS



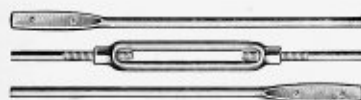
Wrought Steel, Black
Enameled

Spring bolt, reversible. Can be used on right angle doors, sliding-folding doors or hinged doors swinging in or out.

Each
No. 514— $5\frac{1}{2}$ in. long
over all, 24 in. chain
with ring; wt. each
1 $\frac{1}{2}$ lbs.\$0.80

Six in a box, with screws and keepers.

GARAGE DOOR BRACES



Wrought Steel Rod, Malleable Iron
Turnbuckle, Cadmium Plated

Designed for use on garage doors to prevent sagging or to plumb doors already sagged.

Per dozen
No. 2640K—6 ft. long, $\frac{3}{8}$ in. diam-
eter rod; wt. per dozen 17 $\frac{1}{2}$
lbs.\$7.52
One dozen in a carton, with screws.

TIE RODS

WITH PINTLE AND PIN
Wrought Steel, Japanned

Pintle "A" used when doors are mounted with butts. Pintle "B" used when No. 311 hinges are used.

Each
No. 435-2—With pintle "A"
42 in. long, for doors
30 to 36 in. wide; wt.
each 2 $\frac{1}{4}$ lbs.\$1.50

No. 435-3—With pintle "B",
51 in. long, for doors
30 to 36 in. wide; wt.
each 2 $\frac{3}{4}$ lbs. 1.70

Open stock.



BOW HANDLES

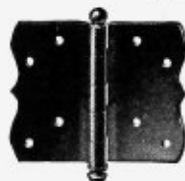
Gray Iron, Black Enameled



Per dozen
No. 81-1—6 $\frac{1}{4}$ in. long; wt.
per dozen 6 lbs.\$3.25
One dozen in a box.

GARAGE DOOR HINGES

SURFACE

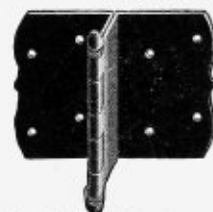


Wrought Steel,
Black Enameled

Per pair
No. 435 — 2 $\frac{1}{2}$ x 4
in.; wt. per
pair 1 $\frac{1}{2}$ lbs.
.....\$0.80

One pair in a box.

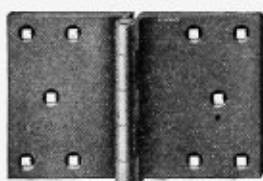
OFFSET SURFACE



Wrought Steel,
Black Enameled

Offset $\frac{3}{4}$ in.
to allow $1\frac{1}{2}$ in.
between doors
when folded.

Per pair
No. 636—2 $\frac{1}{2}$ x 4 in.; wt. per pair 2
lbs.\$0.90
One pair in a box, with screws.

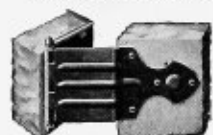


Wrought
Steel
Japanned

Offset $1\frac{1}{2}$
in. to allow
3 in. between
doors when
folded.

Per pair
No. 848-J—4 $\frac{1}{2}$ x 7 in.; wt. per pair
3 $\frac{1}{2}$ lbs.\$1.95
One pair in a box, with screws.

ORNAMENTAL HALF SURFACE



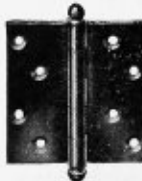
Wrought Steel
Black Enameled

Center of hinge
pin $3\frac{3}{4}$ in. from
edge of jamb
and hinge ex-
tends $4\frac{1}{2}$ in. on
face of door.

This gives sufficient offset to allow
two doors, each $1\frac{3}{4}$ in. thick, to stand
flush with the jamb when opened at 90°
angle.

Per pair
No. 311—Size $8\frac{1}{2}$ in., 4 in. high;
wt. per pair 3 $\frac{3}{4}$ lbs.\$1.60
One pair in a box, with screws.

BUTT



Wrought Steel, Black
Enameled

Per pair
No. 435 — 4 x 4 in.;
wt. per pair 1 $\frac{1}{2}$
lbs.\$0.36

One pair in a box, with screws.

GARAGE DOOR HINGES
HEAVY T

No. SC963 $\frac{1}{2}$ —Wrought Steel, Japanned

Fast pin, half surface.

Length strap, in.	Per pair	Length joint, in.	Width strap at jt., in.	Wt. pr., lbs.
8	\$0.66	5 $\frac{1}{2}$	2 $\frac{3}{4}$	3 $\frac{1}{2}$
10	.88	7	3 $\frac{1}{2}$	5
12	1.54	7 $\frac{3}{4}$	3 $\frac{3}{8}$	6 $\frac{3}{4}$
14	2.43	7 $\frac{3}{4}$	3 $\frac{3}{8}$	7 $\frac{1}{4}$
16	2.98	7 $\frac{3}{4}$	3 $\frac{3}{8}$	8

8 and 10 in., one pair in a box, with
screws; larger sizes, one pair in
a package, with screws.



Wrought Steel, Ball Bearing

Designed to swing doors entirely clear
of opening. Screw holes in door leaf made
to take screws or carriage bolts.

No. BB1456-J—Japanned

Length strap, in.	Per pair	Length joint, in.	Width strap at jt., in.	Wt. pr., lbs.
12	\$5.80	7	2 $\frac{1}{2}$	6 $\frac{1}{2}$
18	6.20	7	2 $\frac{1}{2}$	8
24	7.80	7	2 $\frac{1}{2}$	9
26	11.80	8	2 $\frac{1}{2}$	18 $\frac{1}{2}$

12 and 18 in., one pair in a box, with
screws; larger sizes, one pair in
a package, with screws.



Wrought Steel, Extra Heavy,
Ball Bearing

Screw holes in door leaf made to take
screws or carriage bolts.

Length strap, in.	Per pair	Length joint, in.	Width strap at jt., in.	Wt. pr., lbs.
10	\$3.92	7	3	6
18	4.80	7	3	7 $\frac{3}{4}$
24	5.60	7	3	9 $\frac{1}{4}$

10 and 18 in., one pair in a box, with
screws; 24 in., one pair in a
package, with screws.

STRAP HINGES
LIGHT



Wrought Steel, Plain

No. 900—Without screws.

No. SC900—One pair in a box, with screws.

Length each leaf, in.	Per dozen pairs	Per 100 pairs	Width joint, in.	Wt. dz. prs., lbs.
No. 900	No. SC900			
3	\$0.94	\$14.00	1 3/4	2 3/8
4	1.28	17.00	1 7/8	4
5	1.70	22.00	1 3/4	6
6	2.00	26.00	1 3/4	9
8	3.60	40.00	1 7/8	15
10	7.50	84.00	2 3/8	22
12	11.70	118.00	2 3/4	38

No. 900, 4 in. and smaller, one dozen pairs; 5, 6 and 8 in., one-half dozen pairs; 10 and 12 in., one-quarter dozen pairs in a box.

HEAVY



Wrought Steel, Plain

No. 902—Without screws.

No. SC902—One pair in a box, with screws.

Length each leaf, in.	Per dozen pairs	Per 100 pairs	Width joint, in.	Wt. dz. prs., lbs.
No. 902	No. SC902			
4	\$1.74	\$21.00	1 3/4	6
5	2.32	30.00	1 3/4	9 1/2
6	2.56	34.00	2 5/8	19
8	4.50	52.00	3 3/8	32 3/4
10	7.60	82.00	3 1/2	52 3/4
12	15.60	144.00	4 3/8	81 1/2
14	19.60	.....	4 3/4	86 1/2

No. 902, 4 and 5 in., one-half dozen pairs in a box; 6 and 8 in., one-quarter dozen pairs; 10 and 12 in., one-half dozen pairs in a carton; 14 in., one-twelfth dozen pairs wired, not boxed.

CORRUGATED



Wrought Steel

No. 935—Plain, without screws.

No. 1305—Galvanized, without screws.

No. 1305 1/4—Galvanized, brass pin, without screws.

Length each leaf, in.	Per dozen pairs	Per 100 pairs	Width joint, in.	Wt. dz. prs., lbs.
No. 935	No. 1305	No. 1305 1/4		
4	\$1.92	\$3.28	\$3.81	5 1/4
5	2.48	4.80	5.52	8 1/4
6	2.72	7.20	7.92	15 1/2
8	4.80	12.16	13.68	25 1/2
10	8.00	17.76	20.96	39
12	16.40	30.48	35.68	61

4 and 5 in., one-half dozen pairs; larger sizes, one-quarter dozen pairs in a box.

T HINGES
LIGHT



Wrought Steel, Plain

No. 904—Without screws.

No. SC904—One pair in a box, with screws.

Lgth. strap, in.	Per dozen pairs	Per 100 pairs	Length joint, in.	Wt. dz. prs., lbs.
No. 904	No. SC904			
3	\$1.00	\$14.40	2 3/8	2 3/4
4	1.28	17.20	2 5/8	3 1/2
5	1.74	22.00	3	4 1/2
6	2.20	26.00	3 1/4	6 1/4
8	3.70	40.60	4	9 3/8
10	5.40	56.00	4 1/2	14
12	9.60	98.00	4 3/4	20 1/2

4 in. and smaller, one dozen pairs; 5, 6 and 8 in., one-half dozen pairs, 10 and 12 in., one-quarter dozen pairs in a box.

HEAVY



Wrought Steel, Plain

No. 906—Without screws.

No. SC906—One pair in a box, with screws.

Lgth. strap, in.	Per dozen pairs	Per 100 pairs	Length joint, in.	Wt. dz. prs., lbs.
No. 906	No. SC906			
4	\$2.00	\$24.00	2 7/8	4 1/2
5	2.40	32.00	3 1/4	7 3/8
6	2.60	36.30	3 1/2	9
8	4.00	48.20	3 3/4	12
10	7.00	78.00	4 1/2	20
12	12.96	134.00	5 1/2	33

8 in., and smaller, one-half dozen pairs; larger sizes, one-quarter dozen pairs in a box.

EXTRA HEAVY



Wrought Steel, Plain

No. 908—Without screws.

No. SC908—One pair in a box, with screws.

Lgth. strap, in.	Per dozen pairs	Per 100 pairs	Length joint, in.	Wt. dz. prs., lbs.
No. 908	No. SC908			
4	\$2.24	\$27.00	3 1/2	7 3/4
5	2.80	36.00	3 3/4	13 1/2
6	3.00	40.00	4 1/2	21 1/4
8	5.00	60.00	5 1/2	37
10	8.20	88.00	7	58
12	16.00	156.00	7 3/4	78
14	20.40	.....	7 3/4	82
16	30.00	.....	7 3/4	88

No. 908, 4 and 5 in., one-half dozen pairs; 6 and 8 in., one-quarter dozen pairs in a box; 10 and 12 in., one-half dozen pairs in a carton; 14 and 16 in., one-twelfth dozen pairs wired, not boxed.

T HINGES

EXTRA HEAVY, CORRUGATED



Wrought Steel

No. 937—Plain, without screws.

No. 1307—Galvanized, without screws.

No. 1307 1/4—Galvanized, brass pin, without screws.

Lgth. strap, in.	Per dozen pairs	Per 100 pairs	Length joint, in.	Wt. dz. prs., lbs.
No. 937	No. 1307	No. 1307 1/4		
4	\$2.48	\$4.32	\$5.12	6
5	3.01	6.32	7.28	10 1/2
6	3.20	8.16	10.27	17 1/2
8	5.28	13.68	16.72	29
10	8.72	20.40	24.00	42
12	16.80	29.52	36.00	50

4 and 5 in., one-half dozen pairs; larger sizes, one-quarter dozen pairs in a box.

SCREW HOOK AND STRAP HINGES



No. 821—Wrought Steel, Plain

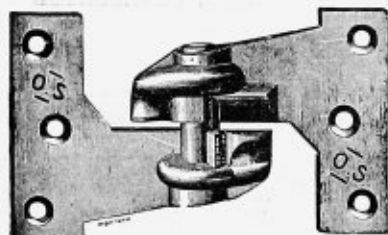
Lgth. strap, in.	Per pair	Size strap, in.	Size screw hook, in.	Wt. per 100 prs., lbs.
6	\$0.40	1 1/4 x 7/8	1/2 x 4 3/4	197
8	.42	1 1/4 x 7/8	1/2 x 4 3/4	222
10	.54	1 1/4 x 7/8	3/4 x 6 1/4	320
12	.60	1 1/2 x 7/8	3/4 x 6 1/4	388
14	.86	1 1/2 x 7/8	3/4 x 6 1/4	602
16	.90	1 1/2 x 7/8	3/4 x 6 1/4	659
18	1.10	1 3/4 x 7/8	3/4 x 6 1/4	793
20	1.24	1 3/4 x 7/8	3/4 x 8 1/2	855
22	1.40	1 3/4 x 7/8	3/4 x 8 1/2	1025
24	1.56	2 x 7/8	3/4 x 8 1/2	1132
30	2.20	2 x 7/8	3/4 x 9	1302
36	2.40	2 x 7/8	3/4 x 9	1533

Open stock.

IF IT'S
AUTOMOBILE
ACCESSORIES
WE HAVE IT
SEE AUTOMOTIVE SECTION

SHUTTER HINGES

O. S. LULL AND PORTER



Hinge



No. 11 1/2 Fastening

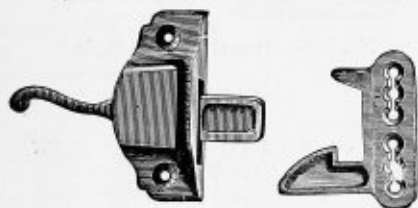


No. 50 Fastening

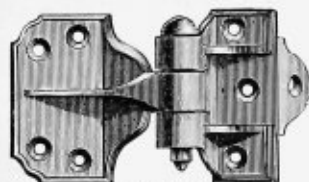
Nos.	Per Doz. Sets	Mortise		Wt. Doz. Sets, Lbs.
		Width Open, In.	With Throw, In.	
3	\$1.80	3	1 1/4	8
2 1/2	2.25	3 1/2	1 1/4	10
2	2.60	4 3/8	2 1/4	13
1 1/2	2.80	5	3 1/4	15
1	3.00	5 3/8	3 1/2	17 1/2
0	6.00	6 1/2	4 1/4	30
00	10.00	9 1/8	6 1/2	45
000	15.00	12	9	60

No. 3, one dozen; Nos. 2 1/2 to 1, one-half dozen; Nos. 0 and 00, one-third dozen; No. 000, one-sixth dozen in a box.

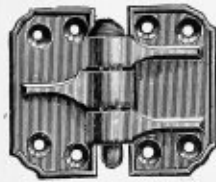
GATE HINGES AND LATCHES



Latch



Lower Hinge



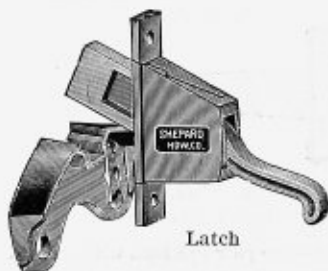
Upper Hinge

One set in a box.

**Reversible;
For Gates to
Swing One Way**
Per dozen sets
No. 1C—Hinges
and latch complete; wt. per
doz. sets 32 lbs.
.....\$6.00

No. 1H—Hinges only; wt. per doz.
22 lbs.\$4.00
Per dozen
No. 1L—Latch only; wt. per doz. 8
lbs.\$2.00
No. 1H, one-quarter dozen pairs; No. 1L,
one-half dozen in a box.

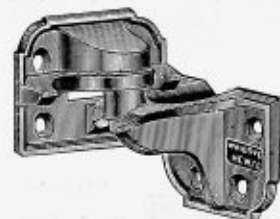
GATE HINGES AND LATCHES



Latch



Lower Hinge



Upper Hinge

For Gates
to Swing
Both Ways
Hinges
hold gate
wide open
when de-
sired.

Per dozen sets
No. 2C—Hinges and latch complete;
wt. per doz. sets 38 lbs.\$8.00
Per dozen
No. 2H—Hinges only; wt. per doz.
pairs 29 lbs.\$6.00
No. 2L—Latches only; wt. per doz.
11 lbs. 2.00
No. 2C, one set; No. 2H, one-quarter dozen
pairs; No. 2L, one-half dozen in a box.

BLIND TURNBUCKLES



**Cast Iron;
For Wood**

Plate 1 1/2 x 1 1/2
in.

Per dozen
No. 23—Japan-
ned; wt. per
doz. 4 1/4 lbs.
.....\$1.80

One dozen in
a box.



**Cast Iron;
For Brick**

Spike 4 1/2 in.

Per dozen
No. 21—Japan-
ned; wt. per
doz. 3 1/4 lbs.
.....\$1.80

One dozen in
a box.

BLIND TURNBUCKLES



Hand Forged Steel, Dead Black Finish

Pivoted above center so as to stand per-
pendicular by gravity.

6 in. high, 3/8 in. thick. Tapered ends.

Per dozen
No. W—For wood, one right and
one left\$12.00
No. B—For brick, one right and
one left 13.20
Weight per pair 3 1/2 pounds.
Open stock.

HINGE HASPS



Wrought Steel, Plain

No. 912—Without screws.
No. SC912—One pair in a box, with screws.

Lgth. In.	Doz., No.	100, No.	Width Joint, In.	Wt. Doz., Lbs.
3	\$0.90	\$10.00	1 1/8	2
4 1/2	1.12	12.00	1 1/8	2 3/8
6	1.80	18.80	1 3/8	5 1/8
8	2.80	32.00	1 7/8	8 1/2
10	4.90	63.00	2 1/8	14 1/2
12	9.70	106.00	2 3/4	19 1/2

No. 912, 6 in. and smaller, one dozen;
larger sizes, one-half dozen in a box.



Wrought Steel, Extra Heavy

Length 7 1/2 in., width joint 1 1/4 in.

Per dozen
No. 941—Plain, without screws\$5.05
No. 941C—Brass plated, with screws 7.00
Weight per dozen 12 pounds.
One-half dozen in a box.

SAFETY HASPS

**Wrought Steel,
Cadmium Plated**



Per dozen
No. 704—Length
4 1/2 in.; wt.
per doz. 6 lbs.
.....\$3.00

One dozen in a display carton, with screws.

SAFETY HASPS



Adjustable staple provides for shrinkage of door.

Wrought Steel

No. 915—Plain, without screws.

No. 915C—Brass plated, with screws.

Length slotted part, in.	No. 915	No. 915C	Width joint, in.	Wt. doz., lbs.
3½	\$1.00	\$2.80	1½	3½
4½	1.30	3.55	1½	4¾
6	1.95	4.50	1¾	9¼
7	6.30	10.80	2½	21½

3½ to 6 in., one dozen; 7 in., one-quarter dozen in a box.



Wrought Steel, Cadmium Plated Double hinge.

No. 705—Length 7½ in.; wt. per doz. 7 lbs.\$4.20
One dozen in a carton.

HASPS AND STAPLES



No. 982—Wrought Steel, Plain With locking device.

Length, in.	Per dozen	Length staples, in.	Wt. doz., lbs.
5	\$0.60	2	2½
6	.65	2¼	3½
7	.75	2½	3¾
8	.80	2½	4
10	1.20	2½	7½

One dozen in a box.

HINGE HASP STAPLES



No. 913—Wrought Steel, without Screws

For hasps, in.	Per dozen	Plate, in.	Wt. doz., lbs.
3	\$0.44	1½x1½	¾
4½	.44	1½x1½	¾
6	.70	2 x1½	1½
8	1.00	2½x1½	1½
10	1.80	2¾x2½	3½
12	1.80	2¾x2½	3½

3 to 8, three dozen; 10 and 12, two dozen in a box.

PADLOCK EYES



Wrought Steel, Cadmium Plated

No. 60—2½ in. wide, ½ in. thick, ¾x5 in. hole; wt. per doz. pairs 2½ lbs.\$1.80

One pair in a box, with screws, one dozen pairs in a carton.



Malleable Iron

No. 3350¼ — 1¾x1½ in., brass plated; wt. per dozen ¾ lbs.\$0.65

No. 3351—2¼x2 in., black japanned; wt. per dozen 2¼ lbs. 1.20

Cast Brass, Buffed and Lacquered

No. 03350—1¾x1½ in.; wt. per doz. ¾ lb.\$3.20

No. 03351—2¼x2 in.; wt. per dozen 2¼ lbs. 4.50
Three dozen in a box.

HOOKS AND STAPLES

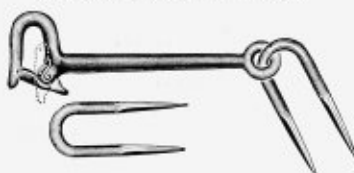


No. 972—Wrought Steel, Plain

Length, in.	4	5	6
Length staples, in.	2	2¼	2½
Wt. gross, lbs.	16½	25	29½
Per gross	\$4.90	6.25	7.50

One-quarter gross in a box.

SAFETY GATE HOOKS



No. 100—Malleable Hook, Tinned Steel Staples

Length, in.	4	5	6
Wt. doz., lbs.	2	2¼	2½
Per gross	\$25.00	28.75	33.00

Two dozen in a box.

HOOKS AND EYES



No. 161—Brass

Length, in.	1	1¼	1½
Wt. gross, lbs.	¾	1	1¼
Per gross	\$4.00	4.25	4.90

Length, in.	2	2½
Wt. gross, lbs.	2	2½
Per gross	\$6.75	9.00

One gross in a box.

GATE HOOKS AND EYES



No. 40—Bright Steel Wire No. 1040—Brass Wire

Lgth., in.	Per gross		Wt. gross, lbs.	
	No. 40	No. 1040	No. 40	No. 1040
1	\$ 1.50	\$ 6.00	1½	1½
1½	1.75	6.50	3	3¼
2	2.00	7.50	4½	4¾
2½	2.50	10.00	5¾	6¾
3	3.00	12.50	9	9¼
3½	3.50	15.00	11½	12½
4	4.00	17.50	12	13
5	6.00	22.50	16	17½
6	7.50	27.50	21¼	22½
8	9.00	35.00	25	26¾
10	10.00	40.00	27¾	30
12	12.50	45.00	31	33

1 and 1½ in., one gross; 2 to 4 in., half-gross; 5 in., one-quarter gross; larger sizes, one-sixth gross in a box.

CABIN DOOR HOOKS



Cast Brass, Wrought Brass Plates

No. 773—Polished

Lgth., in.	Per dozen	Plates, in.	Wt. doz., lbs.
2½	\$ 8.00	1¼x1	1½
3	9.00	1¼x1	1½
4	10.00	1½x1½	2½
5	12.00	1½x1½	3
6	14.00	1½x1½	4¾

One dozen in a box, with screws.

BAR STAPLES

HALF



Wrought Steel

No. 100—For 1¼, 1½, 1¾ and 2 in. bars\$3.00
Open stock.

WHOLE



Wrought Steel

No. 101—For 1¼, 1½, 1¾ and 2 in. bars\$6.00
Open stock.

FOOTMAN LOOPS



Malleable Iron

No. 2—1 in., heavy, per lb.\$0.40
No. 1165—1 in. japanned, per gross 3.00
No. 1165—1½ in. japanned, per gro. 4.20
Open stock.

HITCHING RINGS



Wrought Steel, Solid Forged Eye
3 in. ring.

No. 17—Cadmium plated; wt. per
dozen 4 lbs.\$3.60
One dozen in a box.



Wrought Steel Ring
and Swivel
Ring 2½ in., plate 2½
in.

Per dozen
No. 236 — Japan-
ned\$2.40
No. 237 — Cad-
mium plated.. 3.00
Weight per dozen
4 pounds.

One dozen in a box.

RING BOLTS



No. 132—Wrought Steel, Plain;
Welded Eye

Size, in.	¾	¾	1½
Length shank, in.	3	3½	4½
Wt. dozen, lbs.	4	5	6½
Per dozen	\$3.40	3.80	5.00

One-half dozen in a box.

HOT HOUSE OR GARDEN EYES



Steel Wire, Cadmium Plated

Length, in.	3	4	5
Size wire, Nos.	7	4	4
Wt. gross, lbs.	3	7½	10½
Per gross	\$9.00	15.00	18.00

One gross in a box.

SWING BOLTS



Wrought Steel, Turned Eye, With Nut
No. 113—Cadmium Plated

Size, in.	¼x2½	½x3¼	¾x4
Inside eye, in.	¾	¾	¾
Shank, in.	1½	2	2½
Wt. gross, lbs.	12	19½	23
Per gross	\$5.80	7.35	7.65

Size, in.	¾x4	¾x6	¾x8
Inside eye, in.	1	1	1
Shank, in.	2¼	4¼	6¼
Wt. gross, lbs.	34	44	75
Per gross	\$7.90	9.45	10.50

One dozen in a box.

No. 113L—Extra Lengths, Cadmium
Plated

Size in.	¾x12	¾x14
Wt. dozen, lbs.	80	90
Per dozen	\$1.20	1.20

Open stock.

EYE BOLTS



Wrought Steel, Hand Forged Eye
No. 102—Galvanized

Dia. rod, in.	Per dozen	Inside eye, in.	Lgth. over all, in.	Wt. doz., lbs.
¼	\$1.60	¾	3¾	1
½	1.90	¾	4	1½
¾	3.30	¾	4½	2½
1	3.30	1	5¼	3¼
1½	4.20	1½	5¾	5

One dozen in a box.



Wrought Steel, Hand Forged Eye;
Galvanized

Standard thread, with nut.

No. 83—¾ in. diameter rod, ¾ in. inside eye.

Lgth. over all, in.	3½	4	6	8
Wt. dozen, lbs.	2¾	3¼	4	4½
Per dozen	\$2.60	2.70	3.00	3.40

No. 93—¾ in. diameter rod, 1 in. inside eye.

Length over all, in.	4
Wt. dozen, lbs.	4
Per dozen	\$3.50

No. 103—½ in. diameter rod, 1½ in. inside eye.

Length over all, in.	6	8	10
Wt. dozen, lbs.	5	7½	9
Per dozen	\$4.10	4.25	6.00

No. 113—¾ in. diameter rod, 1½ in. inside eye.

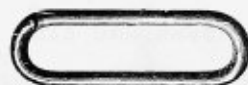
Length over all, in.	8	11½
Wt. per dozen, lbs.	11¼	15¼
Per dozen	\$5.75	10.20

Nos. 83 and 93, one dozen; Nos. 103 to 113, one-half dozen in a box.

SPLIT LINKS



No. 00



No. 0

Brass

Nos.	00	0
Length, in.	1	1½
Wt. gross, lbs.	¼	¾
Per gross	\$1.50	1.75

One gross in a box.

S HOOKS



Bright Steel Wire

Nos.	2810	2812
Length, in.	1½	1¾
Wt. gross, lbs.	1½	1
Per gross	\$1.45	1.10

One gross in a box.



Wrought Steel, Pointed

No. 70—Plain

Length, in.	1½	1¾	2
Wt. gross, lbs.	3¾	4½	8
Per gross	\$3.80	4.40	4.70

Length, in.	2½	3
Wt. gross, lbs.	10	20
Per gross	\$6.10	7.50

No. 72—Galvanized

Length, in.	1½	1¾	2
Wt. gross, lbs.	4½	5	7½
Per gross	\$5.00	6.00	6.60

Length, in.	2½	3
Wt. gross, lbs.	11	20
Per gross	\$9.50	10.30

One-quarter gross in a box.

EIGHT HOOKS



No. 3



No. 4



No. 5

Nos.	3	4	5
Length, in.	1¾	1	¾
Wt. gross, lbs.	1	¾	¾
Per gross	\$1.50	1.30	1.10

One gross in a box.

WE CARRY A LARGE AND
COMPLETE LINE OF
AUTOMOTIVE SUPPLIES
SEE AUTOMOTIVE SECTION

WIRE SCREW EYES

Cuts full size.

SMALL EYE



No. 204 No. 205 No. 206 No. 207
No. 1204 No. 1205 No. 1206 No. 1207



No. 208 No. 209 No. 210 No. 211
No. 1208 No. 1209 No. 1210 No. 1211



No. 212 No. 213 No. 214 No. 215 No. 216
No. 1212 No. 1213 No. 1214 No. 1215 No. 1216

No. Bright	Per Gross	No. Brass	Per Gross	Size Wire No.	Length Over All, In.	Length Stem, In.	I. D. Eye, In.
204	\$1.60	1204	\$ 7.50	4	1 1/8	1 1/8	1/8
205	1.30	1205	6.50	5	1 1/4	1 1/4	1/8
206	1.00	1206	5.25	6	1 1/2	1 1/2	1/8
207	.85	1207	3.75	7	1 3/4	1 3/4	1/8
208	.75	1208	2.75	8	1 7/8	1 7/8	1/8
209	.65	1209	2.50	9	1 3/4	1 3/4	1/8
210	.55	1210	2.00	10	1 7/8	1 7/8	1/8
211	.50	1211	1.50	11	1 7/8	1 7/8	1/8
212	.45	1212	1.25	12	1 7/8	1 7/8	1/8
213	.40	1213	1.25	13	1 7/8	1 7/8	1/8
214	.40	1214	1.25	14	1 7/8	1 7/8	1/8
215	.40	1215	1.25	15	1 7/8	1 7/8	1/8
216	.40	1216	1.25	16	1 7/8	1 7/8	1/8

One gross in a box.

CORNICE HOOKS



Length, in.	3	4	5	6	8
Wt. gross, lbs.	5 1/4	8	9	10 1/2	14
Per gross	\$3.25	3.75	4.50	5.50	7.00

One-half gross in a box.

WIRE SCREW EYES

Cuts full size.

SHORT SHANK, MEDIUM EYE



Nos.	110 1/2	111 1/2	112 1/2	113 1/2	114 1/2	115 1/2	116 1/2
No. Bright Steel	110 1/2	111 1/2	112 1/2	113 1/2	114 1/2	115 1/2	116 1/2
Per Gross	\$0.55	.50	.45	.40	.40	.40	.40
Size Wire No.	10	11	12	13	14	15	16
Length Over All, In.	1 1/8	1	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Length Stem, In.	1/2	1/8	3/8	3/8	3/8	3/8	3/8
I. D. Eye, In.	1/8	1/8	1/8	1/8	1/8	1/8	1/8

One gross in a box.

SHORT SHANK, SMALL EYE



Nos.	208 1/2	209 1/2	211 1/2	212 1/2	214 1/2	215 1/2	216 1/2
No. Bright Steel	208 1/2	209 1/2	211 1/2	212 1/2	214 1/2	215 1/2	216 1/2
Per Gross	\$0.75	.65	.55	.55	.40	.40	.40
Size Wire No.	8	9	10	11	12	13	14
Length Over All, In.	1 1/8	1 1/8	1	1 1/8	1 1/8	1 1/8	1 1/8
Length Stem, In.	1/8	1/8	1/8	1/8	1/8	1/8	1/8
I. D. Eye, In.	1/4	1/4	1/4	1/4	1/4	1/4	1/4

One gross in a box.

SCREW HOOKS



No. 122—Wrought Steel, Galvanized

Diam. rod, in.	1/4	5/8	3/4	7/8
Length over all, in.	4 1/4	4 1/2	4 3/4	5 1/4
Length to bend, in.	2 3/4	2 3/4	2 3/4	2 3/4
Weight dozen, lbs.	1	1 1/4	2 1/2	4 1/4
Per dozen	\$0.82	1.05	1.30	1.80

Diam. rod, in.	1/2	5/8	3/4	7/8
Length over all, in.	6	7	8	8
Length to bend, in.	3 3/4	4	4 1/2	4 1/2
Weight dozen, lbs.	5 1/4	9 1/2	13	13
Per dozen	\$2.45	5.40	8.00	8.00

One dozen in a box.

TRUCK CASTERS MARTIN PATENT



Anti-Friction Swivel

Iron Wheels

Nos.	82	102	112
Diam. wheels, in.	2½	3½	3½
Width wheels, in.	¾	¾	¾
Length plate, in.	4¾	4¾	5
Width plate, in.	3¼	3¾	3¾
Height, in.	3½	4½	4¾
Wt. set, lbs.	11	13	19
Per set of 4	\$2.00	2.50	3.75

Open stock.

BOSS PATENT



Disc-Bearing Swivels with Spacer

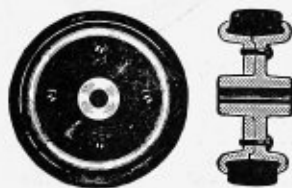
Spacer keeps discs separated and prevents friction.

Wide Wheel, Soft Rubber Tire

Nos.	388-R	390-R
Wheel, in.	2½ x 7	3 x 1
Plate, in.	2½ x 4½	3¼ x 4¾
Height, in.	3½	4¾
Wt. set, lbs.	9¼	13½
Per set of 4	\$7.00	10.50
Nos.	391-R	392-R
Wheel, in.	3½ x 1½	4½ x 1½
Plate, in.	3½ x 5½	4 x 6
Height, in.	5½	5¾
Wt. set, lbs.	20¼	28¼
Per set of 4	\$15.00	22.00

Open stock.

RUBBER TIRES FOR BOSS PATENT CASTERS



Outside diam., in.	2½	3	3½
Inside diam., in.	1¾	2½	2¾
Face, in.	¾	1	1½
Each	\$0.30	.45	.60

Open stock.

TRUCK CASTERS PAYSON ROLLER BEARING SWIVEL



Cast Iron Wheel

Small Sizes, for Furniture, Small Trucks, etc.

Nos.	182	183
Wheel, in.	1½ x 1½	1¾ x 1¾
Plate, in.	1½ x 2	1½ x 2½
Height, in.	1¾	2
Wt. set, lbs.	1	1½
Per set of 4	\$0.76	.92
Nos.	184	186
Wheel, in.	1½ x ¾	2 x ¾
Plate, in.	1½ x 2½	2½ x 3½
Height, in.	2½	2¾
Wt. set, lbs.	2½	4
Per set of 4	\$1.20	1.56

Large Sizes for Heavy Trucks

Nos.	188	190	192
Diam. wheel, in.	2½	3	4
Width wheel, in.	1¾	1¾	2¼
Length plate, in.	4¼	4¾	6½
Width plate, in.	3	3½	4¼
Height, in.	3¾	4½	5¾
Wt. set, lbs.	9	14½	34¾
Per set of 4	\$2.20	3.20	8.80

Open stock.

SWIVEL



Cast Iron, Japanned

Per set of 4

No. 27—2¾ x 7 in. wheel, height to plate 4 in.; wt. per set 1½ lbs. \$2.00

Open stock.

STATIONARY



Cast Iron, Japanned

Nos.	17	20
Wheel, in.	2¾ x 7	3¾ x 1
Plate, in.	4¾ x 2½	5½ x 3½
Height, in.	3½	4¾
Wt. set, lbs.	1½	2½
Per set of 4	\$1.80	2.75

Open stock.

TRUCK CASTERS STATIONARY



Cast Iron, Japanned

Nos.	21	24
Wheel, in.	4 x 1½	4½ x 2
Plate, in.	5¾ x 3¾	6¼ x 4¼
Height, in.	4½	5
Wt. set, lbs.	4½	5½
Per set of 4	\$4.75	5.00

Open stock.

GARAGE DOOR CASTERS PAYSON



For use on uneven or sloping floors or on doors that sag on their hinges.

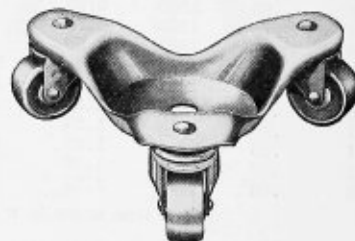
The spring allows a 1¾ in. take-up.

Cast Iron Wheel

No. 7312-182—2 x 7 in. wheel bracket for socket 7¼ in. long; wt. each 3½ lbs.	Each \$3.00
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Open stock.

STOVE TRUCK CASTERS BASSICK



All Steel, Cadmium Rust-Proof Finish

An all purpose caster dollie. Low over all height adapts it for use under heavy boxes, furniture, etc. Ball bearing casters.

No. 700RP—1¼ x 5 in. wheels, diameter cup at bottom 2¾ in., width over all 5¾ in., height over all 1¾ in.; wt. per set 3½ lbs.	Per set of 4 \$1.90
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Open stock.

ELECTRIC FANS **ROBBINS & MYERS**

Junior—Single Speed

100-120 Volts, 60 Cycles A.C., 41 Watts

Quiet, powerful, induction type motor, non-radio-interfering.

Smooth drawn steel motor body and base finished in black Morocco, baked enamel—has the appearance of black Morocco leather.

Bearings and gear of same construction as those used on higher priced R. & M. fans.

Toggle switch in base.

Each



No. 914C—8-inch stationary, 1550 R.P.M., 425 cu. ft. of air per min., 35 watts, with 6-foot cord and attachment plug; wt. each 5 lbs.\$3.45

No. 1014C—10-inch oscillating, 1500 cu. ft. of air per min., 41 watts, with 8-foot cord and attachment plug; wt. each 8½ lbs. 8.95

Standard—Single Speed

100-120 Volts, 60 Cycles A.C.

Quiet, induction type motor of efficient shaded pole type, with drawn steel frame, mounted on cast iron base having felt strip on bottom of flange.

Simply constructed oscillating movement can be changed instantly from oscillating to non-oscillating.

May be mounted in wall bracket position. Single speed switch in base.

Semi-gloss baked black enamel finish.

Each



No. 804C—10 in. oscillating, 1600 R.P.M., 660 cu. ft. of air per min., 39 watts; with 8-foot cord and attachment plug; wt. each 10 lbs.\$12.95

Standard—Three Speeds 100-120 Volts, 60 Cycles A.C.

New capacitor type slow speed, six-pole motor increases efficiency and provides quiet operation—high torque starting—fan will always start promptly in any position and at any speed setting.

Heavy gauge aluminum blades accurately balanced and free from vibration—large area and steep pitch give great air displacement at slow motor speeds.

Oscillating mechanism has exclusive patented adjusting device which, by simple turn of knob at edge of disc, gives any desired arc of oscillation from 0 to 95 degrees—provides five complete oscillations per minute at first speed.

Four-point, three-speed lever-type switch and felt covered base.

Semi-gloss baked black enamel finish.

Equipped with 8-foot cord and attachment plug.

Each

No. 1204—12 in. oscillating, 1075 R.P.M. high speed, 925 R.P.M. medium speed, 800 R.P.M. low speed, 1100 cu. ft. of air per min., 35 watts on high speed; wt. each 23 lbs.\$25.00

No. 1604—16 in. oscillating, 1070 R.P.M. high speed, 900 R.P.M. medium speed, 775 R.P.M. low speed, 1740 cu. ft. of air per min., 59 watts; wt. each 25 lbs. 32.00

ELECTRIC FANS **ARCTIC-AIRE**

Single Speed

110-120 Volts, 50-60 Cycles A.C.

Quiet running induction type motor—non-radio-interfering.

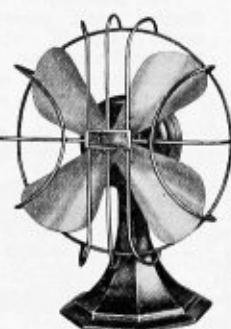
Heavy base, felt padded, will not mar furniture.

Blades dynamically balanced, extreme width at ends, deliver widest possible air stream. Oilless bearings.

Single speed switch.

Equipped with Underwriters' approved cord set.

Each



No. 80—8 in. stationary, 1800 R.P.M., 425 cu. ft. of air per min.; wt. each 3 lbs.\$3.85

Single Speed

110-120 Volts, 50-60 Cycles A.C.

Quiet running induction type motor—non-radio-interfering.

Heavy Airflo design base, felt padded—will not creep nor mar furniture.

Blades dynamically balanced, extreme width at ends, deliver widest possible air stream. Oilless bearings.

Oscillating mechanism totally enclosed—gears sealed in grease box.

Single speed switch in base.

Equipped with Underwriters' approved cord set.

Each



No. 101—10 in. oscillating, 1850 R.P.M., 710 cu. ft. of air per min.; wt. each 10 lbs.\$ 8.95

No. 121—12 in. oscillating, 1450 R.P.M., 1075 cu. ft. of air per min.; wt. each 22 lbs. 15.95

ELECTRIC FOOD MIXERS **UNIVERSAL**

Operates on A.C. or D.C.

Mixes, blends, whips, creams and stirs.

Portable—bowls and beaters easily removed. Motor tilts back permitting beaters to drip into mixing bowl. Large mixing bowl revolves automatically.

Three speed motor—a speed for every need.

Ivory enamel finish with ebonized handle.

Equipped with 6-foot rubber covered damp-proof cord.

Complete with two French ivory heat resisting glass bowls—small bowl 5½ in. diam., large bowl 8¾ in. diam.

Each



No. E891—Without juicer attachment; wt. each 22 lbs.\$17.95

No. E892—With juicer attachment; wt. each 26¼ lbs. 21.50

No. E894—With juice attachment and slicer and shredder attachment; wt. each 29 lbs. 25.00

HEATER CORD SETS



All iron plugs, plugs and wire are Underwriters' approved. Heater and attachment plugs are absolutely short-circuit-proof.

Nos. 6153U and 6153W made up with type HC, 3000 cycle glazed cotton 16 B. & S. gauge heater cord. No. 5328S made up with type HPD, 3000 cycle glazed cotton 16 B. & S. gauge heater cord. Nos. 8300 and 335 made up with type HPD, 3000 cycle, soft cotton 18 B. & S. gauge heater cord.

Each

No. 6153U—With handle attachment plug and switchless bakelite radius clips iron plug, 6½ ft.; wt. each ¾ lb.\$1.00

No. 6153W—With handle attachment plug and switchless bakelite grip-action iron plug, 7 ft.; wt. each ¾ lb. 1.35

No. 5328S—With handle attachment plug and Hemco bakelite iron plug with switch, 7 ft.; wt. each ¾ lb.75

No. 8300—With Hemco handle attachment plug and C-H switchless iron plug, 7 ft.; wt. each ¾ lbs.50

No. 335—With Hemco handle attachment plug and C-H switchless bakelite iron plug, 6 ft.; wt. each ¾ lb.35

ELECTRIC GLUE POTS

STA-WARM

110 Volts, A. C.



Inner and outer castings of pots are of aluminum. Removable heavy spun copper insert with ball and removable brush wiper.

The heating element is wound tightly around cast aluminum inner wall so heat reaches glue instantly.

Asbestos insulation holds heat in and converges it on the contents of the pot.

Automatic heat control or thermostat keeps two-thirds of the current turned off except for a few minutes when starting the cold glue pot. Makes overheating impossible and protects the heating element from burning out. Thermostat set to maintain a temperature of 150 degrees.

The removable brush wiper saves glue, surplus scraped off brush, falls into pot. Also same time in washing the pot.

Equipped with 6-foot cord and plug separable at pot.

Nos.	400	401	402	404
Cap.	1 pt.	1 qt.	2 qt.	4 qt.
Initial watts	187	264	363	573
Wt. each, lbs.	6	7	11	16
Each	\$13.50	15.50	18.50	30.00

One in a carton.

Note—Can also be furnished for 220 or any special voltage.

ELECTRIC SOLDERING IRONS

STANLEY INDUSTRIAL

Fast, economical and dependable. Production tools, correctly balanced. High grade elements. Shaped wood handles, with cord and plug.

Operate on A. C. or D. C., 115 and 230 volts (specify when ordering).



Nos. 320 and 330



No. 340



Nos. 350 to 390

Complete, each

No. 320—52 Watts, equal to old style coppers of 1 lb. per pair, ⅝ in. diam. tip; wt. less cord 8½ ozs., length adjustable from 10¼ to 13¼ in.\$6.00

No. 330—65 Watts, equal to old style coppers of 2 lbs. per pair, ½ in. diam. tip; wt. less cord 10½ ozs., length adjustable from 11¼ to 13¼ in. 7.00

No. 340—95 Watts, equal to old style coppers of 3 lbs. per pair, ⅞ in. diam. tip, wt. less cord 13 ozs., length adjustable from 11¼ to 13¼ in. 7.50

No. 350—135 Watts, equal to old style coppers of 4 lbs. per pair, ⅞ in. diam. tips, wt. less cord 18 ozs., length adjustable from 11¼ to 14¼ in. 8.00

No. 360—180 Watts, equal to old style coppers of 5 lbs. per pair, 1 in. diam. tip, wt. less cord 22 ozs., length adjustable from 11¼ to 14¼ in.10.00

No. 370—225 Watts, equal to old style coppers of 6 lbs. per pair, 1¼ in. diam. tip, wt. less cord 22 ozs., length adjustable from 12 to 14¼ in. 12.00

No. 380—315 Watts, equal to old style copper of 8 lbs. per pair, 1½ in. diam. tip, wt. less cord 38 ozs., length adjustable from 12¼ to 15 in. 14.00

No. 390—435 Watts, equal to old style coppers of 10 lbs. per pair, 1¾ in. diam. tip, wt. less cord 49 ozs., length adjustable from 12¼ to 15¼ in. 16.00

Replaceable Parts, Complete, Each

For Nos.	Tip	Handle	Heating Head	Cord & Plug
320	\$0.35	\$0.75	\$4.65	\$0.75
330	.45	.75	5.55	.75
340	.45	.75	6.05	.75
350	.75	.75	6.25	.75
360	1.00	.75	8.00	.75
370	1.25	.75	9.65	.75
380	1.80	.75	11.20	.75
390	2.35	.75	12.65	.75

Note—Order irons according to the duty they must perform. A size heavier is better than a size too light.

ELECTRIC SOLDERING IRONS

WELLMADE



Model A

110-120 Volts, 50 Watts

For household or radio use, also satisfactory for watch repairing, soldering of wire ends in factories and other small work. Green enameled handle, highly nickel-plated tube and large copper tip.

Complete with two large copper tips, a diamond-point tip ⅝ inch diameter by 2¼ inches long and a pencil-type radio tip ⅝ in. diameter by 2¼ in. long—the pencil point is ¼ inch diameter by 1¼ inches long.

Equipped with 6-foot black cord.

Each

No. A—13 in. long, with 2 tips; wt. each 11 oz.\$1.10

One in a box.



Model B

110-120 Volts, 75 Watts

For heavy work. For soldering wire ends together, assembling radio sets, connecting telephone exchange wires, automobile repair work, etc. Large green enameled handle, nickel plated tube, large copper tip. Metal parts highly polished.

Equipped with 6 foot asbestos covered heater cord, two-piece attachment plug and copper tip.

Each

No. B—15 in. long, with one diamond-point tip ¾ in. diam. 3 in. long; wt. each 1 lb.\$1.60

One in a box.



Model C

110-120 Volts, 100 Watts

Larger and heavier than Model B. Used for many purposes—light factory work, radio assembling, auto repair work, auto radiator repairing, etc. Large green enameled handle, nickel plated tube and nickel plated heat chamber.

Complete with two solid copper tips, a diamond-point tip ⅞ inch diameter by 2¼ inches long and a pencil-point tip ⅝ inch diameter by 3¼ inches long—the pencil point is ¼ inch diameter by 1½ inches long.

Equipped with 6 foot asbestos covered heater cord.

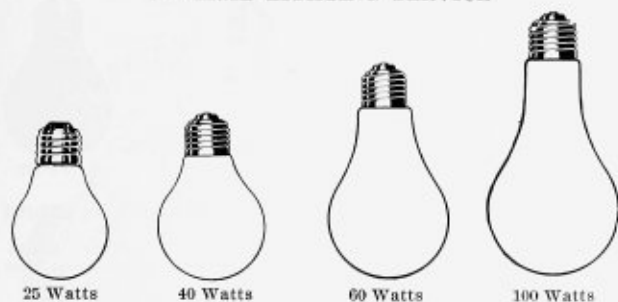
Each

No. C—16 in. long, with 2 tips; wt. each 1½ lbs.\$2.00

One in a carton.

WESTINGHOUSE MAZDA LAMPS

GENERAL LIGHTING SERVICE



Standard Inside Frosted
Medium Screw Base, 110, 115 and 120 Volts

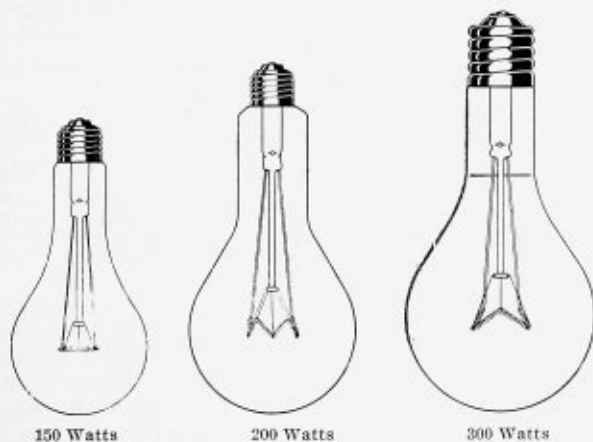
Watts	Bulb	Approx. lumens	Lgth. over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Each
15	A-17	138	3 $\frac{3}{8}$	120	11 $\frac{1}{2}$	\$0.15
25	A-19	252	3 $\frac{1}{2}$	120	12 $\frac{1}{2}$	.15
40	A-19	432	4 $\frac{1}{4}$	120	12 $\frac{1}{2}$	.15
60	A-21	750	4 $\frac{1}{8}$	120	15 $\frac{1}{2}$	.15
75	A-21	1035	5 $\frac{1}{8}$	60	9 $\frac{1}{2}$	.20
100	A-23	1520	6 $\frac{1}{8}$	60	9 $\frac{1}{2}$	.20
150	A-25	2505	6 $\frac{1}{8}$	60	9 $\frac{1}{2}$	.25

Note—Lamps of 40 watts and above are gas filled and because of the bulb temperature should be protected from rain and snow when used out-of-doors.

Inside Colored

Medium Screw Base, 110, 115 and 120 Volts

Watts	Bulb	Lgth. over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Each
25	A-19	3 $\frac{1}{2}$	120	12 $\frac{1}{2}$	\$0.20
40	A-21	4 $\frac{1}{8}$	120	14 $\frac{1}{2}$	.23



110, 115 and 120 Volts

Watts	Bulb	Approx. lumens	Std. pkg.	Wt. std. pkg., lbs.	Clear Each	Inside frosted Each	White bowl Each
150	A-25	2535	60	6 $\frac{3}{4}$	\$0.25	.....	\$0.30
200	PS-30	3400	24	9	.35	\$0.40	.40
300	PS-35	5520	24	14 $\frac{1}{2}$	.75	.80	.80
500	PS-40	9800	12	9 $\frac{1}{4}$	1.40	1.50	1.50
750	PS-52	14550	6	13	3.75	....	3.95
1000	PS-52	20700	6	13	4.00	....	4.20
1500	PS-52	33000	6	13	5.75	....	5.95

Note—150 and 200 watt have medium screw base, balance have mogul screw base.

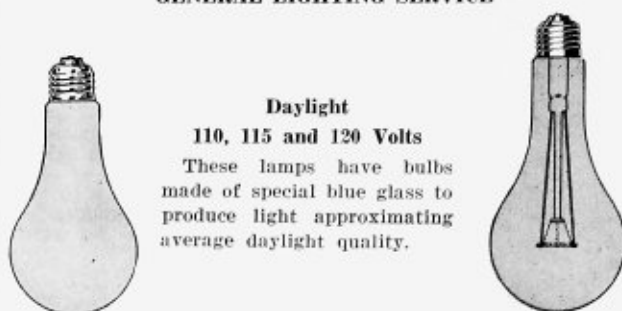
750, 1000 and 1500 watt lamps will operate in any position but lumen maintenance is best when burned vertically base up. The clear lamps are also suitable for floodlighting service.

White bowl lamps should be burned base up only.

Dimensions

Watts	.....150	200	300	500	750	1000	1500
Lgth. overall, in.	.....6 $\frac{1}{8}$	8 $\frac{1}{8}$	9 $\frac{1}{8}$	9 $\frac{1}{8}$	13 $\frac{1}{8}$	13 $\frac{1}{8}$	13 $\frac{1}{8}$

GENERAL LIGHTING SERVICE



Daylight

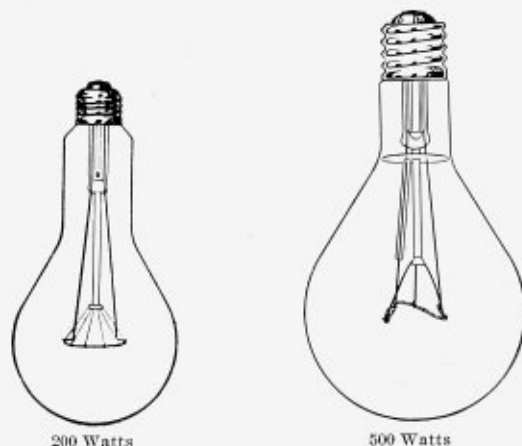
110, 115 and 120 Volts

These lamps have bulbs of special blue glass to produce light approximating average daylight quality.

Watts	Bulb	Approx. lumens	Lgth. over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Clear Each	Inside Frosted Each
60	A-21	495	4 $\frac{1}{8}$	120	15 $\frac{1}{2}$	.....	\$0.30
100	A-23	988	6 $\frac{1}{8}$	60	9 $\frac{1}{2}$	.....	.35
150	A-25	1650	6 $\frac{1}{8}$	60	6 $\frac{3}{4}$	\$0.50	.55
200	PS-30	2210	8 $\frac{1}{8}$	24	9	.80	.85
300	PS-35	3590	9 $\frac{1}{8}$	24	14 $\frac{1}{2}$	1.20	1.30
500	PS-40	6370	9 $\frac{1}{8}$	12	9	2.15	2.30

Note—60 to 200 watt inclusive have medium screw base, 300 and 500 watt have mogul screw base.

HIGH VOLTAGE LIGHTING SERVICE



220, 230, 240, 250 and 260 Volts

These lamps will operate in any position of burning, but the lumen maintenance, particularly in lamps of higher wattage sizes, is best when burned vertically base up.

Watts	Bulb	Approx. lumens	Std. pkg.	Wt. std. pkg., lbs.	Clear Each	Inside frosted Each	White bowl Each
25	A-19	213	120	12 $\frac{1}{2}$	.....	\$0.26	.....
750	A-21	475	120	15 $\frac{1}{4}$	.....	.26	.....
100	A-23	1100	60	9 $\frac{1}{2}$	.....	.38	.....
200	PS-30	2920	24	9	\$0.85	.90	\$0.90
300	PS-35	4560	24	14 $\frac{1}{2}$	1.25	1.35	1.35
500	PS-40	8350	12	9 $\frac{1}{4}$	2.15	2.30	.....
750	PS-52	13125	6	13	4.25	....	....
1000	PS-52	19000	6	13	4.75	....	....

†This lamp in 275 and 300 volts for mine lighting service can be obtained at a list of 40 cents.

750 and 1000 watt lamps will operate in any position but lumen maintenance is best when burned vertically, base up.

White bowl lamps should be burned base up only.

Note—25 to 200 watt inclusive have medium screw base, balance have mogul screw base.

WESTINGHOUSE MAZDA LAMPS

THREE-LITE

Inside Frosted
Three-Contact Mogul Base, 110, 115
and 120 Volts

Provides flexibility in lighting from indirect and semi-indirect floor lamps and new types of indirect lighting wall brackets.

Permits use of three levels of illumination from its two filaments, which may be burned either at the same time (300 watts) or separately (100 or 200 watts), a range from a moderate amount of light for decorative value to full brilliancy, depending upon activities for which light is desired.

Watts	Bulb	Approx. lumens	Length over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Each
50-100-150	PS-25	50-Watt, 515	6 1/8	60	7 1/2	\$0.50
		100-Watt, 1400				
		150-Watt, 1915				
		100-Watt, 1310				
100-200-300	G-30	200-Watt, 3480	6 3/4	24	10 3/4	.65
		300-Watt, 4790				

MILL SERVICE

Clear

Medium Screw Base, 110, 115 and 120 Volts
Constructed particularly for industrial service where there is jar or vibration.
Recommended for base up burning only.

Watts	Bulb	Length over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Each
50	P-19	3 1/8	120	12 1/2	\$0.25

ROUGH SERVICE

Inside Frosted

Medium Screw Base, 110, 115 and 120 Volts
Adapted for extension cord service in shops, garages and ship yards in which the lamp receives rough handling.

Watts	Bulb	Length over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Each
50	A-19	3 1/8	120	13	\$0.34
100	A-23	6 7/8	60	10	.55

LIMITED LIGHTING SERVICE

Clear—110, 115 and 120 Volts

Low wattage tubular bulb lamps are available for use in show-case lighting, in shallow depth displays, and in small trough-type reflectors.

These and other tubular types are becoming more popular because of the greater appreciation by designers and lighting users of lighted displays, luminous elements and new luminous architectural forms.

T-6 1/2 Bulb

T-10 Bulb

Watts	Bulb	T-8 Bulb		Std. pkg.	Wt. std. pkg., lbs.	Each
		Screw base	Inter.			
25	T-6 1/2	Inter.		60	6	\$0.35
25	T-10	Med.		60	10	.25
40	T-8	Med.		24	10	.90

SIGN AND DECORATIVE SERVICE



S-6 Bulb



S-11 Bulb



S-14 Bulb



A-19 Bulb

110, 115 and 120 Volts

Recommended for outdoor exposed lamp signs and for colored festoons and similar decorative lighting.

Watts	Bulb	Bulb finish	Screw base	Wt. std. pkg., lbs.	Clear each	Inside frosted each	Inside colored each
*6	S-6	(a)	Cand.	2 1/2	\$0.15	....	....
6	S-14	(b)	Med.	2 1/2	.15	\$0.15	\$0.20
10	S-11	(c)	Inter.	4 1/2	.15	....	.20
10	S-14	(b)	Med.	10	.15	.15	.20
25	A-19	(d)	Med.	12 1/2	....	.15	.20
25	A-19	(e)	Med.	12 1/2	.30	....	....
50	A-19	(e)	Med.	12 1/2	.35	....	....

120 in a standard package.

Note—The above prices apply only to the manufacturer's standards of inside coloring.

*Candelabra base lamps not recommended for outdoor service.

(a) Clear.

(b) Clear, red, blue, green, yellow, amber-orange, and old rose.

(c) Clear, red, blue, green, yellow, amber-orange, dametint, and white.

(d) Inside frosted, red, blue, green, yellow, amber-orange, dametint, ivory, and old rose.

(e) Clear daylight.

DECORATIVE LIGHTING SERVICE

Outside Coated

110, 115 and 120 Volts

Adapted to many decorative and ornamental fixtures used in homes, clubs, lobbies, foyers, and public buildings, where bulb shape is related to artistic design of luminaire. Not recommended for outside use.



F-10 Bulb



F-15 Bulb



G-18 1/2 Bulb

White, Ivory and Flamentint

Watts	Bulb	Screw base	Length over all, in.	Std. pkg.	Wt. std. pkg., lbs.	Each
15	F-10	Cand.	3 7/8	60	3	\$0.25
25	F-15	Med.	4 1/2	120	16 3/4	.15
25	G-18 1/2	Med.	3 7/8	120	12 1/4	.30
25	G-25	Med.	4 7/8	60	9 3/4	.35
40	G-25	Med.	4 7/8	60	9 3/4	.35

Note—These prices apply only to the manufacturers' standards of outside coating.

FLASHLIGHT SERVICE



No. 223



Nos. 233, 13, 14



Nos. 502, 31

Nos.	Volts	Amperes	Cell	Bulb	Each
223	2.2	0.25	2	FE-3 3/4	\$0.09
233	2.3	0.27	2	G-3 1/2	.09
13	3.8	0.30	3	G-3 1/2	.09
14	2.5	0.30	2	G-3 1/2	.09
502	5.0	0.15	4	G-4 1/2	.12
31	6.2	0.30	5	G-4 1/2	.11
112	1.1	0.22	1	TL-3 3/4	.07
701	2.2	0.25	2	FE-3 3/4	.07
*710	2.3	0.27	2	G-3 1/2	.07
*713	3.8	0.30	3	G-3 1/2	.07
*714	2.5	0.30	2	G-3 1/2	.07

* Concentrated filament for focusing and non-focusing.

Ten in a carton; weight carton 1 1/4 to 2 ounces.

RADIO PANEL SERVICE



Nos.	Volts	Amperes	Bulb	Each
41	2.5	0.50	T-3 1/4	\$0.09
42	3.2	0.35	T-3 1/4	.12
44	6.3	0.25	*T-3 1/4	.09
46	6.3	0.25	T-3 1/4	.09

* Fitted with miniature bayonet base.

† Recommended for A.C. radios requiring 6.3 volt lamp.
Ten in a carton; weight carton about 2 ounces.

FLASHLIGHTS

EVEREADY COMPETITIVE LINE ASSORTMENT



All Nickel Plated Brass Cases

Per assortment

No. 29—Consists of 9 flashlights as described below, complete with lamps, **without cells**; wt. per assortment 4 lbs.\$4.33

Contents of No. 29 Assortment

2—No. 250, 2-cell non-focusing, 6½x1½ in. case.

5—No. 251, 2-cell focusing spotlight, 350 ft. range, 6½x1½ in. case, candle light feature.

2—No. 351, 3-cell focusing spotlight, 450 ft. range, 9x1½ in. case, candle light feature.

One assortment in an attractive display carton.

EVEREADY INDUSTRIAL TYPE



Provides safe, efficient and economical light for industrial use. Entire outer casing made of heavy fibre reinforced internally with brass parts to withstand severe service. Will not break from blows or dropping impact; unaffected by oils, gasoline, alcohol, benzol, etc. Its insulating qualities make this light safe for use by electrical workers around current of relatively low potential.

Head focusing, lamp shock absorber, double thick lens, silver plated reflector easily replaceable, molded slide switch.

No. 3251—6¾x1½ in., with No. 1191 lamp, takes two No. 950 unit cells, **without cells**; wt. each ½ lb.\$1.75

No. 3351—9¼x1½ in., with No. 1403 lamp, takes two No. 950 unit cells, **without cells**; wt. each ½ lb. 2.25

One in a carton.

FLASHLIGHTS

EVEREADY COMPETITIVE LINE



Two Cell Focusing Spotlight

Heavily nickel plated case of heavy seamless brass tubing. New style switch providing both "flash" and "steady" light position and ring hanger. Can be quickly converted into candle light by simply removing head assembly.

Each

No. 251—6½x1½ in., 350 ft. range, with No. 1161 lamp, takes two No. 950 unit cells, **without cells**; wt. per package 2¼ lbs.\$0.45
Six in a unit package.



Three Cell Focusing Spotlight

Heavily nickel plated case of heavy seamless brass tubing. New style switch providing both "flash" and "steady" light position; ring hanger; candle light feature.

Each

No. 351—9x1½ in., 450 ft. range, with No. 1162 lamp, takes three No. 950 unit cells, **without cells**; wt. per package 1½ lbs.\$0.65
Three in a unit package.



Three Cell Focusing Searchlight

Heavily nickel plated seamless brass tubing case; switch providing "flash" and "steady" light position; bulb shock absorber; ring hanger, candle light feature.

Each

No. 352—9x1½ in., 700 ft. range, with No. 1162 lamp, takes three No. 950 unit cells, **without cells**; wt. per package 2¼ lbs.\$0.70
Three in a unit package.

Five Cell Focusing Searchlight

Heavy seamless brass tubing case, heavily nickel plated; switch providing both "flash" and "steady" light position; bulb shock absorber, ring hanger; candle light feature.

Each

No. 552—14x1½ in., 2100 ft. range, with No. 1125 lamp, takes five No. 950 unit cells, **without cells**; wt. per package 2½ lbs.\$0.99
Three in a unit package.

FLASHLIGHTS

EVEREADY HIGH QUALITY LINE



Two Cell Non-Focusing

Black finish ribbon design brass case with chromium fittings; safety lock switch; ring hanger.

Each

No. 2604—6¾x1½ in., with No. 1161 lamp, takes two No. 950 unit cells, **without cells**; wt. each ¼ lbs.\$0.75
One in a carton.



Two Cell Focusing Spotlight

Black ribbon design brass case with chromium fittings; safety lock switch; ring hanger; candle light feature.

Each

No. 2671—7x1½ in., 400 ft. range, with No. 1161 lamp, takes two No. 950 unit cells, **without cells**; wt. each ¼ lb.\$0.80
One in a carton.



Two Cell Focusing Spotlight

Chromium plated ribbon design brass case. Safety switch has molded black control button. Candle light feature; ring hanger.

Each

No. 2673—7x1½ in., 400 ft. range, with No. 1161 lamp, takes two No. 950 unit cells, **without cells**; wt. per package ¼ lb.\$1.05
One in a carton.



Five Cell Focusing Searchlight

Chromium plated ribbon design brass case; safety lock switch; ring hanger; candle light feature, permitting conversion into candle by removing head assembly.

Each

No. 2645—14¼x1½ in., 2500 ft. range, with No. 1125 lamp, takes five No. 950 unit cells, **without cells**; wt. each 1 lb.\$2.25
One in a carton.



3-Cell Mine Safety Focusing Spotlight

Chromium plated ribbon design brass case; safety lock switch ring hanger; candle light feature.

Each

No. 2695—9¼x1½ in., 500 ft. range, with No. 1162 lamp, takes three No. 950 unit cells, **without cells**; wt. each 1 lb.\$3.95
One in a carton.

FLASHLIGHTS

EVEREADY SPECIAL AUTOMOBILE TYPE



Two Cell Focusing, with Special Holder

A few turns of the wing nut clamps the holder securely to the steering post, out of the way, yet at the finger tips.

Black finished metal case with chromium plated switch. Black japanned spring steel holder with small hardwood rollers to protect the flashlight against scratching and to grip it firmly to prevent rattling and slipping.

Each
No. 42—6¼x1½ in., 350 ft. range,
No. 1161 lamp, takes two No.
950 unit cells; without cells; wt.
each ¾ lb.\$0.59

Six in a carton.

EVEREADY PEN-LIGHT DISPLAY



Contains eight No. 210 Eveready 2-cell Pen-Lights put up on attractive display card.

Using the new bulls-eye lamp, the Pen-light throws a brilliant beam of concentrated light when the hood is in place. When hood is removed, side rays give a broader distribution of illumination. Clip controls switch.

Finished in chromium and beautifully striped with standard Eveready reeding.

Uses two No. 915 Eveready batteries and No. 1152 Eveready Mazda lamp.

Per display

No. 21—Consists of 8 Pen-Lights,
5½x5 in. case, complete with
lamps, with cells; wt. per pack-
age 8 lbs.\$3.92

One display package in a carton.

FLASHLIGHT BATTERIES

EVEREADY UNIT CELLS

No. 915
Penlight

No. 935

No. 950

	Round		
Nos.	915	935	950
Length, in.	1½	2	2½
Diam., in.	¾	1¼	1½
No. in unit pkg.	12	12	48
Wt. pkg., lbs.	½	1¼	10½
Each	\$0.05	.10	.10

EVEREADY LANTERN



Railroad Lantern Type

Each
No. 409—3½x2½x2½
in.; wt. per pkg.
1½ lbs.\$0.45

One in a unit
package.

DRY BATTERIES



EVEREADY COLUMBIA

Renowned for long life and excellent service for all dry cell uses. The exceptionally long life and quick recuperation have made this battery famous for ignition, radio and other heavy duty service.

Each
No. 6—1½ volts, 2½ in. diam., 6½
in. high; wt. per standard pack-
age 57 lbs.\$0.35
Twenty-five in a standard package.

DRY RADIO BATTERIES

EVEREADY PLUG-IN "B"

Medium, Verti-
cal Layerbilt

A new size 45-volt Eveready Layerbilt battery employing the same principle of construction used in the No. 486.

Each
No. 485—45-volt, 8½ in. long, 3½ in.
wide, 8 in. high; wt. each 9½
lbs.\$1.49
Five in a unit package.

Large, Vertical Layerbilt

This battery will greatly outlast any other battery of similar size and is by far the most economical purchase in "B" batteries today.

Each
No. 486—45-volt, 8 in. long, 4½ in.
wide, 8 in. high; wt. each 14¼
lbs.\$1.98
Five in a unit package.

DRY RADIO BATTERIES

EVEREADY PLUG-IN "B"



Medium, Vertical Round Cell

This battery has approximately the same dimensions as the Eveready No. 485 but is of cylindrical cell construction.

Each
No. 772—45-volt, 7½ in. long, 3½
in. wide, 8 in. high; wt. each
9 lbs.\$1.10

Five in a unit package.



Large, Vertical Round Cell

This battery has approximately the same dimensions as the Eveready No. 486 but is of cylindrical cell construction.

Each
No. 770—45-volt, 7½ in. long, 4½
in. wide, 8 in. high; wt. each
1¼ lbs.\$1.59
Five in a unit package.

WET RADIO BATTERIES

EVEREADY AIR CELL "A"



For 2-Volt Tube Receivers

Improved model. Economical and convenient. Obtains its necessary life giving oxygen from the air by means of a remarkable form of oxygen absorbing carbon used as positive electrode.

For sets with maximum load of 660 Mil-
liamperes.

Each
No. A600—9½ in. long, 6½ in. wide,
10½ in. high; wt. each 23 lbs. ..\$5.95
One in a carton.

GASOLINE LAMPS COLEMAN



Match Generating

Make and burn their own gas from any good grade of clean gasoline. Burn 4% gas to 96% air, producing 300 candle power of live, air pressure light.

Safe to use since fuel fount is made of brass and steel—no glass to break. Lamp cannot be filled while lighted; cannot spill fuel if tipped over.

Fount finished in an attractive silver-tone, has a fuel capacity of 2 pints, enough for 10 to 12 hour service. Separate pump.

Complete with high quality Parisienne Kid parchment shade, inner Pyrex glass globe to protect mantles, two Silk-Lite mantles and separate pump.

Each

No. 134P—Lamp 19½ in. high over all, shade 13x7 in.; wt. each 7½ lbs.\$5.70

One in a carton.

KEROSENE LAMPS COLEMAN



Torch Generating

Produces 300 candle power air pressure light using kerosene as the fuel.

Safe to use since fuel fount is made of brass and steel—no glass to break. Lamp cannot be filled while lighted; cannot spill fuel if tipped over.

Fount finished in an attractive Indian bronze, has a fuel capacity of 2 pints, enough for 10 to 12 hour service. Separate air pump.

Complete with high quality Parisienne Kid parchment shade, inner Pyrex glass globe to protect mantles, two Silk-Lite mantles and separate pump.

Each

No. 129—Lamp 19½ in. high over all, shade 13x7 in.; wt. each 7½ lbs.\$6.75

One in a carton.

GASOLINE LANTERNS COLEMAN

Make and burn their own gas from any good grade of clean gasoline free of anti-knock compounds. Burn 4% gas to 96% air producing clear, steady-shining, dark-chasing brilliance for any lighting job at night. Not affected by wind, rain or storm.

Founts are durably constructed of brass and steel. Lanterns cannot be filled while lighted, cannot spill fuel if tipped over.



Instant Lighting; Double Mantle Type

A fine, big, powerful lantern producing 300 candle power air pressure light.

Nickel plated fount is equipped with built-in pump and hand operated filler plug, has a capacity of 2 pints, enough for 12 to 15 hour service.

Complete with Pyrex glass globe, two Silk-Lite mantles, green porcelain enameled ventilator top and wrenches.

Each

No. 220B—Lantern 14½ in. high over all, ventilator top, 6¾ in. diameter; wt. each 5½ lbs....\$7.45

One in a carton.



Instant Lighting; Single Mantle Type

Produces up to 175 candle power light.

Nickel plated fount is equipped with built-in pump and hand operated filler plug, has a capacity 1½ pints, enough for 7 to 9 hour service.

Complete with Pyrex glass globe, one Silk-Lite mantle and green porcelain enameled ventilator top.

Each

No. 242B—Lantern 12½ in. high over all, ventilator top 5½ in. diameter; wt. each 4½ lbs....\$5.95

One in a carton.

LANTERN GLOBES COLEMAN

Pyrex

Genuine Pyrex heat resisting glass. For use on Instant Lighting lanterns Nos. 220B and 228B and 235.

Each



No. 330—4¾ in. diameter, 5¼ in. high; wt. each 1½ lbs.....\$1.00
One in a carton.

Pyrex; Bulge Type

Genuine Pyrex heat-resisting glass. For use only on lanterns Nos. 242 and 242A, 242B and 234.

Each



No. 550—3½ in. diameter, 4½ in. high; wt. each ¾ lb.....\$0.75
One in a carton.

MANTLES COLEMAN SILK-LITE



Specially Treated Rayon Fibre

Triple lock weave, exceptionally strong and flexible.

A high quality mantle, most economical to use.

Junior Size

Per dozen

No. 21—For Coleman lamps and lanterns; wt. per doz. 2 oz....\$0.90

Two in a glassine envelope, six envelopes in waxine box, one dozen boxes in counter display carton.

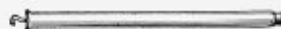
GENERATORS COLEMAN COIL



For Use on Match Generating Lamps and Lanterns

Each

No. Q99—Wt. per carton ¾ lb.....\$0.35
Twelve in a carton.



For Use on Lamps and Lanterns with Roto-Type Burners

Equipped with gas tip cleaning needle operated by a rotary lever which is built in the burner.

Each

No. T44G—Wt. per carton ¼ lb....\$0.40
Six in a carton.

LANTERNS

D-LITE, COLD BLAST



Equals the largest cold blast lanterns in lighting power and strength of construction, with the added advantage of being fitted with a short, Loc-Nob globe.

Bright tin with terne plate bottom. Specially braced globe lift and reinforced tubes.

Volume of light by test 10 candle-power.

Per dozen

- No. 2D—Height over all 13½ in., with No. 262 burner, 1 in. wick and D-Lite Loc-Nob Clear globe, fount capacity 45 hours; wt. per dozen 36 lbs.\$20.00
- No. 2DR—With Ruby globe, otherwise same as No. 2D. 23.00

One-half dozen in a carton.

LITTLE WIZARD, COLD BLAST



The little lantern with the big light. Sells readily to contractors because of its small size, dependability, visibility and comparatively low price.

Bright tin with terne plate bottom. Specially braced globe lift.

Volume of light by test 6 candle-power.

Per dozen

- No. LW—Height over all 11½ in., with No. 201 burner, ½ in. wick and Little Wizard Loc-Nob Clear globe; fount capacity 30 hours; wt. per dozen 24 lbs.\$14.50
- No. LWR—With Ruby globe, otherwise same as No. LW. 17.50

One dozen in a carton.

BLIZZARD, COLD BLAST



One of the best cold blast lanterns of the high-globe type. The Loc-Nob globe cannot fall out when swung back for inspection.

Bright tin with terne plate bottom. Specially braced globe lift and reinforced tubes.

Volume of light by test 10 candle-power.

Per dozen

- No. 2B—Height over all 14½ in., with No. 262 burner, 1 in. wick and "Fitzall" Loc-Nob Clear globe, fount capacity 45 hours; wt. per dozen 60 lbs.\$20.00
- No. 2BR—With Ruby globe, otherwise same as No. 2B. 23.00

One-half dozen in a carton.

LANTERNS

JUNIOR, COLD BLAST



A nicely proportioned small lantern of highest grade cold blast construction in which is combined minimum weight and bulk with maximum lighting power.

Bright tin with terne plate bottom.

Volume of light by test 6 candle-power.

Per dozen

- No. JR—Height over all 12 in., with No. 201 burner, ½ in. wick and Junior Loc-Nob Clear globe, fount capacity 15 hours; wt. per dozen 23 lbs.\$14.50
- One dozen in a carton

HY-LO, HOT BLAST



Dependable burning qualities, together with practical but simple construction makes this lantern popular with builders.

Bright tin with terne plate bottom.

Volume of light by test 4 candle-power.

Per dozen

- No. HL—Height over all 13½ in., with No. 421 burner, ½ in. wick and "Fitzall" Loc-Nob Clear globe, fount capacity, 20 hours; wt. per dozen 26 lbs.\$13.00
- No. HLR—With Ruby globe, otherwise same as No. HL. 16.00
- One dozen in a carton.

WAGON LANTERNS

JUNIOR, COLD BLAST



Very popular due to its compact size, excellent construction and bright cold blast light.

Constructed of heavy tin, finished in black enamel. Fitted with a bullseye lens, legal ruby rear lens, bright corrugated reflector and dash clamp. Furnished right or left hand and fits either round or flat holder.

Volume of light by test 10 candlepower.

Per dozen

- No. WJR—Height over all 12 in., with No. 201 burner, ½ in. wick and Junior Clear globe, fount capacity 15 hours; wt. per doz. 40 lbs.\$27.00
- One-half dozen in a carton.

Note—Specify if wanted for right or left hand.

RAILROAD LANTERNS

DIETZ STANDARD



For Signal Oil

Constructed of bright tinned steel with bell bottom and inside oil pot, which cannot drop out. Substantial round wire guard protects the globe.

Globe and loose oil pot lift in and out when the top of the lantern is turned back on its hinge.

Outside wick raiser.

Volume of light by test 2 candlepower.

Per dozen

- No. 39—Height over all 12 in., with No. 1 burner, 1 in. wick and Vulcan Clear globe, fount capacity 24 hours; wt. per dozen 32 lbs.\$24.20

One dozen in a carton.

MINERS' LAMPS

JUSTRITE MINERS' CAP



With Wire Feed

Polished brass construction; with lighter attachment, round hook and concave reflector.

With No. 77 carbide can.

Per dozen

- No. 85—Height 3¾ in., diam. reflector 2¼ in., burning capacity 2½ hours; wt. per dozen 6 lbs.\$15.00

One dozen in a carton.

JUSTRITE SUPERINTENDENTS



With Wire Feed

Brass, nickel plated construction; with lighter attachment, flame protector, concave reflector and folding handles.

With No. 77 carbide can.

Per dozen

- No. 95—Height 4¾ in., diam. reflector 3 in., burning capacity 4 hours; wt. per dozen 5¼ lbs.\$26.00

One dozen in a carton.

PYRAMID MILL TORCHES **WALL "EVERLASTING"**



Brazed Steel

Manufactured from heavy steel, complete with screw top, chain and hook, and rounded handle.

For factories, foundries, rolling mills, blast furnaces, construction work, etc.

Nos.	81	82
Cap., qts.	1/2	1
No. of burners	1	1
Wt. dozen, lbs.	11 1/4	16 1/2
Per dozen	\$9.00	10.00
Nos.	83	84
Cap., qts.	1	2
No. of burners	2	1
Wt. dozen, lbs.	18	21
Per dozen	\$11.00	12.00

Open stock.

TORCH WICKS

For Pyramid Mill Torches

Per pound

Torch Wicks—5/8 in. diameter braided cotton	\$1.00
Twenty-five yards in a coil.	

LAMP OR LANTERN WICKS



Flat, For All Ordinary Burners

High grade, standard, full weight.

Nos.	1	2
Width, in.	5/8	1
Length, in.	7 3/4	7 3/4
Wt. gross, lbs.	4 1/2	1 1/2
Per gross	\$1.50	2.00

One dozen in a package.

CANDLE WICKING



Per pound

Candle Wicking—Cotton, in 2 oz. balls	\$0.75
Five pounds in a bag.	

LANTERN GLOBES **D-LITE LOC-NOB**



For use on "D-Lite" cold blast lanterns. Specifications: 4 3/8 in. high, 4 1/8 in. diam. top, 3 1/8 in. diam. bottom.

D-Lite Clear—Clear glass	\$2.25
D-Lite Ruby—Ruby glass	5.25

Weight per dozen 12 1/2 pounds.

Five dozen in a case.

LITTLE WIZARD LOC-NOB



For use on "Little Wizard" lanterns. Specifications: 3 1/8 in. high, 3 1/4 in. diam. top, 2 1/8 in. diam. bottom.

Little Wizard Clear—Clear glass	\$2.25
Little Wizard Ruby—Ruby glass	5.25

Weight per dozen 8 1/2 pounds.

Five dozen in a case.

FITZALL LOC-NOB



For use on "Blizzard" and "Hy-Lo" lanterns.

Specifications: 6 7/8 in. high, 2 1/8 in. diam. top, 3 1/8 in. diam. bottom.

Fitzall Clear—Clear glass	\$2.25
Fitzall Ruby—Ruby glass	5.25

Weight per dozen 14 pounds.

Five dozen in a case.

JUNIOR LOC-NOB



For use on "Junior" and "Junior Wagon" lanterns.

Specifications: 5 1/2 in. high, 2 3/8 in. diam. top, 2 1/8 in. diam. bottom.

Junior Clear—Clear glass	\$2.25
Junior Ruby—Ruby glass	5.25

Weight per dozen 10 pounds.

Six dozen in a case.

LANTERN GLOBES **VULCAN**



Fits No. 39 "Standard" railroad lantern.

Specifications: 5 1/8 in. high, 2 1/2 in. diam. top, 3 1/4 in. diam. bottom.

Vulcan Clear—Clear glass	\$2.60
Vulcan Ruby—Ruby glass	6.10

Five dozen in a case.

CARBIDE **MINERS' LAMP**



One-Half Inch Size

Specially selected, and perfectly adapted for use in miners' lamps. Uniform size and quality. Free from dust. Will keep indefinitely if protected from air and moisture.

Put up in blue and gray screw top sheet steel drums.

Size drum, lbs.	25	100
Per drum	\$3.00	11.00

PLUMBERS' CANDLES



For shop or plumbers' use.

No. 214—1 1/4 x 6 in.	\$0.35
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Approximate weight of five candles one pound.

50 pounds in a case.

SEND US YOUR MAIL ORDERS

All Orders for Regular Goods

Shipped Same Day Order Is

Received

OUR LARGE STOCK DECREASES
BACK-ORDERING TO A MINIMUM.

WATERING POTS GALVANIZED



Hand dipped galvanized finish, deeply swedged body, multiple seamed top and bottom. Beaded streamlined ball, long spout for correct pouring, brass finished rose, decorated red and green, is of heavy non-corrosive zinc.

Nos.	1504	1506	1508
Cap., qts.	4	6	8
Wt. dozen, lbs.	23	26	31
Per dozen.	\$9.00	10.00	11.50

Nos.	1510	1512	1516
Cap., qts.	10	12	16
Wt. dozen, lbs.	36	42	54
Per dozen.	\$13.00	15.00	19.50

Nos. 1504, 1506 and 1508, one-half dozen; Nos. 1510 and 1512, one-third dozen; No. 1516, one-quarter dozen in a carton.

BUSHEL BASKETS GALVANIZED



Hand dipped galvanized finish; swedged body, seamless drawn bottom, corrugated and double seamed to body.

Drop Wire Handles

No. 21W—Cap. 1 bushel, 17½x11¼ in.; wt. per dozen 69 lbs.	Per dozen \$12.00
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One-half dozen in a bundle.



Note—Illustration at left shows type of handles only as furnished on the following baskets.

Hand dipped galvanized finish, swedged body, seamless drawn bottom, corrugated and double seamed to body.

Heavy Rope Handles

No. 21R—Cap. 1 bushel, 17½x11¼ in.; wt. per dozen 69 lbs.	Per dozen \$14.50
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One-half dozen in a bundle.

DRINKING CUPS TIN



Pieced, IC tin, straight sides.

No. 212—Trade cap. 1¼ pts., 3½x 2½ in.; wt. per dozen 1¼ lbs.	Per dozen \$0.60
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Six dozen in a carton.

FUNNELS TIN



Pieced, IC tin, wire ring handle.

Nos.	15	20	30	35
Trade cap., qts.	¼	½	2	4
Size, in.	3½	4½	6½	7½
Wt. dozen, lbs.	1	1½	3	4
Per dozen.	\$0.70	1.00	2.00	2.50

Three dozen in a carton.

CUSPIDORS CAST IRON



Broad top; one-piece, self righting. White enameled inside, maroon painted outside.

No. 67—9½ in. diameter top, 6½ in. high; wt. per dozen 100 lbs.	Per dozen \$16.00
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One-half dozen in a crate.



Sanitary, removable top. White enameled inside, maroon painted outside, gold stripe.

No. 69—8 in. diameter top, 4½ in. high; wt. per dozen 90 lbs.	Per dozen \$17.00
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One-half dozen in a crate.

STEEL



Lead coated steel, olive green enamel finish.

No. 1—9½ in. diameter top, 4 in. high; wt. per dozen 32 lbs.	Per dozen \$8.45
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One-half dozen in a carton.

OIL CANS GALVANIZED



Made from zinc coated steel sheets. Strong wire bail with wood roll handle, hexagon filler cap. All seams are thoroughly hand-soldered and every can tested by 15 lbs. air pressure.

Nos.	101	102	105
Capacity, gals.	1	2	5
Filler cap., in.	1½	1½	2½
Wt. dozen, lbs.	21	33	62
Per dozen.	\$6.00	8.00	12.50

No. 101, one dozen; No. 102, one-half dozen; No. 105, one-quarter dozen in a carton.

WOOD JACKET



Cone Top

Heavy tin; wood jacket with red hoops. Wire bail with wood roll handle.

Every can hand-tested.

Cap., gals.	1	2	3
Wt. each, lbs.	1½	2½	4
Each	\$0.45	.55	.70

Cap., gals.	5	10
Wt. each, lbs.	5	7½
Each	\$0.85	1.50

Open stock.

PAIL AND KETTLE EARS



No. 30

Wrought steel, tinned.

Nos.	20	30
Inches	1½x1¼	1¼x1½
Wt. gross, lbs.	2	2½
Per gross.	\$1.40	1.70

Nos.	40	50
Inches	1½x1¼	1¾x2
Wt. gross, lbs.	3¼	4½
Per gross.	\$2.40	3.80

No.	60
Inches	2x2¼
Wt. gross, lbs.	6
Per gross.	\$4.60

One gross in a box.

KITCHEN PAILS

GIBSON



Sheet steel outer container, galvanized steel inner container. Stepping on foot pedal raises cover.

Finished in sea green, light blue, ivory or red with black stripes and beautiful decal.

Per dozen

Gibson—12 qt. capacity, 14½ in. high, 11 in. diameter; wt. per dozen 72 lbs. \$18.00

One-twelfth dozen in a carton.

Note—When ordering above, specify color wanted.

GARBAGE PAILS

KING FLARING



Galvanized

Constructed of galvanized steel sheets with deep vertical corrugations. Seamless bottom, and cover, heavy wire bail.

Each

No. 2X—9 gal. capacity, 16 in. high, 14½ in. diam. top, 12½ in. diam. bottom; wt. each 6 lbs. \$2.00

Open stock.

KING



Galvanized

Extra heavy black steel, hot dipped after being made up; lock seamed, securely riveted bands, straight edge corrugations. Close fitting, seamless cover makes pail odorless and air-tight, heavy wire bail.

Nos.	7	8	9
Cap., gals.	5	7	9
Height, in.	12½	12½	12½
Diam., in.	11½	13	14½
Wt. each, lbs.	9	10	11
Each	\$2.25	2.50	3.00

Nos.	5	6
Cap., gals.	9	13
Height, in.	15½	18½
Diam., in.	13	14½
Wt. each, lbs.	12	14
Each	\$3.00	3.50

Open stock.

ASH OR GARBAGE CANS

WINTON



Galvanized

Constructed of galvanized steel sheets with deep vertical corrugations. Seamless bottom and cover, side drop handles securely riveted on. Top and bottom striped in red.

Nos.	115	117	127
Cap., gals.	15	20	27
Diam., in.	15½	17½	19½
Height, in.	19	24	24½
Wt. each, lbs.	9	11	18½
Each	\$1.50	1.75	3.00

Open stock.

KING FLARING



Galvanized

Constructed of galvanized steel sheets with deep vertical corrugations. Seamless bottom and cover, drop side handles.

Nos.	3X	4X
Cap., gals.	15	20
Height, in.	20½	23
Diam. top, in.	17½	18½
Diam. bottom, in.	14½	15½
Wt. each, lbs.	9¾	11½
Each	\$2.00	2.25

Open stock.

KING



Galvanized

Extra heavy black steel, hot dipped after being made up; lock seamed, securely riveted bands, straight edge corrugations. Seamless bottom, seamless tight fitting cover, drop side handles.

Nos.	1	2	3
Cap., gals.	19	27	37
Diam., in.	15	18	21
Height, in.	29	29	29
Wt. each, lbs.	25	32	38
Each	\$6.00	6.50	7.25

Open stock.

ASH OR GARBAGE CANS

WITT



Galvanized

Extra heavy; galvanized after being made up, with steel bands riveted to top and bottom rims. Heavy concave bottom, seamless cover, heavy drop side handles.

Nos.	1W	2W	3W
Cap., gals.	20	27	33
Diam., in.	16	18½	20½
Height, in.	26	26	26
Wt. each, lbs.	27½	32	36½
Each	\$6.00	6.50	7.25

Open stock.

UNDERGROUND GARBAGE

RECEIVERS

MAJESTIC



Heavy Steel Body

16 gauge copper bearing steel body, thoroughly painted inside and out. 26 gauge galvanized inset can with double locked seams. Break-proof malleable iron top and hinges, non-rusting hinge pins prevent corrosion and binding of lid.

Heavy malleable cover opens by pressure of foot, closes by gravity and seals contents away from flies, insects, dogs, etc. Inset can equipped with heavy bail for easy emptying.

Nos.	15	20
Cap., gals.	15	20
Size can, in.	14½x23	17½x23½
Size shell, in.	15½x26	19½x26½
Wt. each, lbs.	55	92
Each	\$11.90	15.40

One in a carton.

Extra Inset Cans for Majestic Receivers

Nos.	15C	20C
Each	\$2.50	3.80

One in a carton.

COMPRESSION BIBBS



PLAIN
Polished Brass

Hexagon shoulder;
iron pipe thread.

Nos.	871	872	874
Size, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Wt. dozen, lbs. ..	7	9 $\frac{1}{2}$	15
Per dozen	\$8.04	8.48	12.28

One-half dozen in a carton.



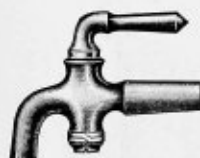
HOSE
Polished Brass

Hexagon shoulder;
iron pipe thread.

Nos.	891	892	894
Size, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Wt. dozen, lbs. ..	8	10	14
Per dozen	\$9.10	9.40	12.50

One-half dozen in a carton.

LEVER HANDLE BIBBS



Polished Brass

Tinny shank, for
lead pipe.

Nos.	231	232	233
Size, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Wt. dozen, lbs. ..	8 $\frac{1}{2}$	11	12 $\frac{1}{2}$
Per dozen	\$26.40	27.00	37.20

Nos.	234	235
Size, in.	$\frac{3}{4}$	1
Wt. dozen, lbs.	16 $\frac{1}{2}$	29
Per dozen	\$47.40	68.40

One-half dozen in a carton.

RACKING COCKS



Polished Brass

Screw shank for
wood; loose key,
rivet bottom.

No. 43— $\frac{3}{8}$ in.; wt. per dozen 13 lbs.		
Per dozen		\$31.20

One-half dozen in a carton.



Polished Brass

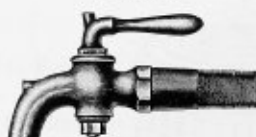
Screw shank for
wood; loose key;
with nut and wash-
er.

Nos.	640	641	642
Size, in.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Wt. dozen, lbs.	2 $\frac{1}{2}$	3	4
Per dozen	\$15.00	18.00	23.40

No. 640 and 641, one dozen; No. 642, one-half dozen in a carton.

PETROLEUM FAUCETS

FRARY



Japanned Iron Body, Brass Key

Screw shank for wood; lever handle.

Nos.	14	5
Size, in.	$\frac{1}{2}$	$\frac{5}{8}$
Wt. dozen, lbs.	8	10
Per dozen	\$11.00	13.00

Nos.	6	7
Size, in.	$\frac{3}{4}$	1
Wt. dozen, lbs.	16	23 $\frac{1}{2}$
Per dozen	\$16.00	23.00

One-half dozen in a carton.

LOCK OIL BIBBS

McDONALD



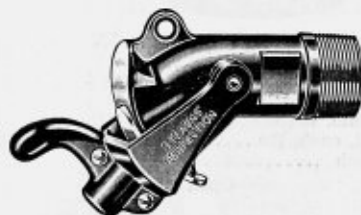
Cast Brass, Rough Finish

Hexagon shoulder;
iron pipe thread; lock
lever handle.
When closed, lever
handle drops over loop on bibb allowing
it to be padlocked.

For Steel Oil Barrels and Drums

No. E11001— $\frac{3}{4}$ in.; wt. per dozen 16 lbs.		
Per dozen		\$11.40

One-half dozen in a carton.

OIL AND MOLASSES GATES
STEARNS PERFECTION PATTERN

Cast Iron, Japped, $\frac{3}{8}$ in. Eye

Will hold the thickest of syrups, var-
nishes, etc., to the thinnest of fluids like
benzine, naphtha, etc.

Style "A"—Wood Thread

Size, in.	$\frac{1}{2}$	$\frac{3}{4}$	1
Wt. dozen, lbs.	15	17	22
Per dozen	\$16.50	17.00	17.60

Size, in.	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2
Wt. doz. lbs.	31	43	56
Per dozen	\$20.35	24.00	33.00

Style "E"—Iron Pipe Thread

Size, in.	$\frac{3}{4}$	1	1 $\frac{1}{4}$
Wt. dozen, lbs.	17	22	26
Per dozen	\$17.00	17.60	20.35

Size, in.	1 $\frac{1}{2}$	2
Wt. dozen, lbs.	31	46
Per dozen	\$24.20	33.00

$\frac{3}{4}$ to 1 $\frac{1}{4}$ in., one-half dozen; balance,
one-quarter dozen in a box.

SILL COCKS
COMPRESSION PATTERN

Brass, Nickel Plated

Rough body, semi-finished trimmings.
With wheel handle which may be used
as loose key.

Size, in.	$\frac{1}{2}$	$\frac{3}{4}$
Wt. dozen, lbs.	6 $\frac{1}{2}$	7
Per dozen	\$16.00	21.00

One-half dozen in a carton.

LIQUOR FAUCETS



Polished Brass

Screw shank for wood; lever ball han-
dle; with nut and washer.

Nos.	111	112
Size, in.	$\frac{1}{2}$	$\frac{5}{8}$
Wt. dozen, lbs.	7	8 $\frac{1}{2}$
Per dozen	\$19.20	24.60

One-half dozen in a carton.

McKENNA BURGLAR PROOF



Brass, Nickel Plated

Screw shank for wood; loose key.
The "shut-off" is inside the barrel,
therefore not a drop of liquor can remain
in the body of the faucet. A German silver
strainer cap prevents foreign substance
from entering faucet.

Size, in.	$\frac{3}{8}$
Wt. dozen, lbs.	12
Per dozen	\$27.00

One dozen in a box.

BUNG HOLE BORERS
IMPROVED ENTERPRISE

Steel; Wood Handle

Bores a complete round hole with regu-
lar taper and holds its own chips. It is
made with a round lip bit, thereby insur-
ing smoothness in boring.

Nos.	1	2	3
Bores, in.	$\frac{5}{8}$ to 1 $\frac{1}{2}$	1 $\frac{1}{2}$ to 2	1 $\frac{1}{2}$ to 3
Wt. each, lbs.	1 $\frac{1}{2}$	3 $\frac{1}{2}$	4 $\frac{3}{4}$
Each	\$4.00	5.50	8.00

Twelve in a case.

POLISHING MOPS

O'CEDAR SLIP-ON



Long new lint-proof cotton yarn; improved enameled solid center.

Triangular shape reaches into corners, gets under furniture, radiators, etc.

Pad is removable for washing and re-newing, is easily replaced on frame.

Equipped with 48 in. lacquer finished wood handle with metal screw head.

Buff Yarn, Treated with O'CEDAR Polish

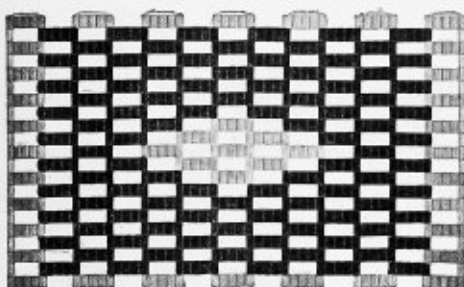
Per dozen

No. 4—Small Size, 5½ oz. yarn, 16x 16 in. spread; wt. per dozen 25 lbs.

Wrapped in cellophane; one dozen in a carton. \$12.00

DOOR MATS

NEO-LINK RUBBER



Rubber

Made of new live cushioned rubber in assorted color combinations. Can be used both sides and are easily washed and kept clean. Metal parts are rust-proofed.

Nos.	2	3
Size, in.	15x25	17x32
Wt. dozen, lbs.	55	80
Per dozen	\$21.00	26.00

One dozen, assorted color combinations, in a carton.

KEYSTONE FLEXIBLE STEEL



Galvanized

Made of finest galvanized rust-proof, round edge, ribbon steel bands, ¾ in. deep and ½ in. thick, linged together with 14 gauge galvanized steel rods. Reinforced ends.

Always lies flat and can never warp or curl up at the edges.

Nos.	1	2	3
Size, in.	16x24	18x30	22x36
Wt. each, lbs.	4½	6½	9½
Each	\$1.50	2.10	2.95

Nos.	4	7
Size in.	24x42	36x60
Wt. each lbs.	12	25½
Each	\$3.60	7.90

Open stock.

HOUSE BROOMS



Finest Selected Broom Corn

Five seams sewed with colored thread, tin lock, No. 1 plain finish handle.

Nos.	3	4
Wt. dozen, lbs.	26	28
Per dozen	\$13.20	13.80

Nos.	5	6
Wt. dozen, lbs.	30	32
Per dozen	\$14.20	15.00

One dozen in a bundle.

WAREHOUSE BROOMS

LAY



Highest quality, long wearing broom with metal case, metal band, twine sewing and strong hardwood handle.

Corn and Rattan Mixture for Rough Floors

Nos.	226	327
Rows stitching	2	3
Wt. dozen, lbs.	36	42
Per dozen	\$13.20	15.60

All Corn for Smooth Floors

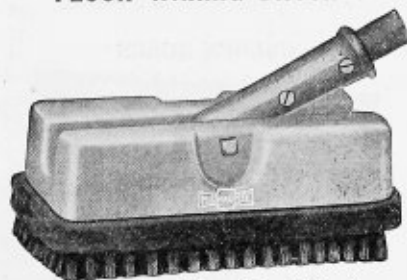
Nos.	326	327
Rows stitching	3	3
Wt. dozen, lbs.	36	42
Per dozen	\$13.20	15.60

Corn and Bamboo Mixture for Factory Floors

Nos.	426	427
Rows stitching	2	2
Wt. dozen, lbs.	36	42
Per dozen	\$10.80	13.20

One dozen in a bundle.

FLOOR WAXING BRUSHES



Stiff Gray Fibre Brush Part

Aluminum finished casting with felt guard or bumper, varnished wood handle.

No. 200—Brush 8¾x4½ in., 1 in. trim; wt. each 15 lbs. \$3.75
One in a carton

FLOOR BRUSHES



Selected Bassine Fibre

Staple set; natural varnished block, two tapered handle holes; heavy duty handle.

Joe—16 in. block, 4 in. stock; wt. per dozen 49 lbs. \$24.00
One-twelfth dozen in a carton.



Black Horsehair Casing

Palmetto center row, gray tampico next two rows, black horsehair casing; polished block with two threaded handle holes, 5 ft. polished handle.

Nos.	914	916	918
Block, in.	14	16	18
Length stock, in.	3¼	3¼	3¼
Wt. dozen, lbs.	34	37	40
Per dozen	\$27.00	30.00	33.00

Nos.	920	924
Block, in.	20	24
Length stock, in.	3¼	3¼
Wt. dozen, lbs.	43	50
Per dozen	\$39.00	42.00

One-twelfth dozen in a box, one dozen in a carton.

PUSH BROOMS

BASS



Black Dyed Genuine African Bass

Solid hardwood block with two tapered handle holes; handles not included.

No. 1126—14x3½ in. block, 5 rows, 6¼ in. stock; wt. per dozen 40 lbs. \$16.00
One-half dozen in a box.

STEEL WIRE

Tempered Flat Steel Wire

Selected two-piece hardwood block; two handle holes, handles not included.

No. 120—12x2¾ in. block 4 rows, 5 in. stock; wt. per dozen 28 lbs. \$15.00
One dozen in a carton.

PUSH BROOM HANDLES

Hardwood

Tapered end, smoothly sanded.
Per dozen
No. 45—5 ft. long; wt. per dozen 18 lbs. \$3.00
Open stock.

COUNTER OR BENCH BRUSHES

OSBORN

**Extra Stiff Pure Black Horse Hair**

Staple set, solid plain handle.

No. 426—8 in. long, 2 3/4 in. trim;
wt. per dozen 9 1/2 lbs. \$12.00

One-half dozen in a carton.

MILWAUKEE

**Selected Gray Tampico Fibre**

Staple set, natural finish polish handle.

Captain—8 in. long, 2 3/4 in. trim; wt.
per dozen 8 lbs. \$9.00

One-half dozen in a carton.

SCRUBBING BRUSHES

OX FIBRE

**Palmyra Fibre**

Smooth finished hardwood block.

Twinkle—8 1/4 x 2 3/4 in. block, 1 in.
trim, 4x12 rows; wt. per dozen
7 lbs. \$1.76

Three dozen in a box.

**Gray Tampico Fibre**

Tumbled wax finished hardwood block.

Rat—8x2 3/4 in. block, 1 in. trim, 5x14
rows; wt. per dozen 7 lbs. \$3.19

One dozen in a box.

**Ox Palmetto Fibre**

Hub shaped polished hardwood block.

Hub—7 1/4 x 2 3/4 in. block, 1 1/8 in. trim
5 rows; wt. per dozen 7 lbs. \$3.85

One dozen in a box.

WINDOW BRUSHES

OSBORN

**Round Pattern;
Pure Black Horse
Hair**Staple set, oval
face; red lac-
quered block, 2
handle holes.

No. 37—4 3/4 in. block, 2 1/4 in. trim;
wt. per dozen 12 1/4 lbs. \$12.00

One-half dozen in a carton.

**WINDOW CLEANERS OR
SQUEEGES**

GALVANIZED QUEEN

**Galvanized Frame and Handle**

Frame and channel made of heavy gauge
galvanized iron formed to give it the
greatest possible strength and rigidity.
The two strips of pure gum rubber are
1/2 in. thick, are firmly fastened and can
not pull out of shape.

Nos.	2-10	2-12	2-14	2-16
Length, in.	10	12	14	16
Wt. dozen, lbs.	6	7	8	9
Per dozen	\$3.00	3.60	4.20	4.50

One-half dozen in a carton.

SILVER QUEEN

**Cadmium Plated Steel Strips, Black
Japanned Handle**

Heavy flat steel channel strips. Top
strip countersunk for screw heads, bottom
strip tapped for screw threads. No nuts
to get lost, no nuts or screws to damage
chamois. Soft, pliable, White Seal service
rubber. Stamped steel handle.

Per dozen
No. 9—16 in.; wt. per dozen 18 lbs. \$10.75
One-twelfth dozen in a carton.

GOLDEN QUEEN

**All Brass Metal Parts, Gold Lacquered
Finish**

Heavy spring brass channel. Top strip
countersunk for screw heads, bottom strip
tapped for screw threads. No nuts to get
lost. No nuts or screw heads to damage
chamois. Soft, pliable, White Seal service
rubber. Stamped brass handle with rein-
forced round edges.

Per dozen
No. 5—16 in.; wt. per dozen 18 lbs. \$18.00
One-twelfth dozen in a carton.

STEEL WIRE BRUSHES

CURVED HANDLE

**Tempered Fine
Steel Wire**

1 3/8 in. trim, solid block.

Per dozen
No. 1777—3x19 rows, block 1 1/8 x 1 3/8
in. over all, brush part 6 in.
long; wt. per dozen 5 1/2 lbs. \$3.25

SHOE HANDLE

**Tempered Fine
Steel Wire**

1 1/4 in. trim, solid block.

Per dozen
No. 1781—4x16 rows, block 1 1/4 x 1 1/4
in. over all, brush part 5 1/4 in.
long; wt. per dozen 5 lbs. \$3.90

**STRAIGHT
BACK****Fine Round
Tempered Steel
Wire**1 3/4 in. trim,
solid block.

Per dozen
No. 1780—6x19 rows; 7 1/4 x 2 1/4 in.
block; wt. per dozen 9 1/2 lbs. \$4.50

**CURVED BACK
Fine Round
Tempered Steel
Wire**1 3/8 in. trim,
solid block.

Per dozen
No. 1779—9x21 rows, 7 1/4 x 2 3/4 in.
block; wt. per dozen 10 lbs. \$6.75
All above, one dozen in a carton.

BUTCHER BLOCK

**Tempered
Flat Steel
Wire**

1 in. trim, straight solid wood block.

Per dozen
No. 104—5x10 rows, 7 3/4 x 2 3/4 in.
block; wt. per dozen 10 1/2 lbs. \$3.60
Three dozen in a carton.

**FOUNDRY****Tempered Flat
Steel Wire**Solid block,
5 wires doubled
per hole.

Nos.	1	2	7
Trim, in.	2	3	4
Rows	4x10	4x10	5x10
Block, in.	7 3/4 x 2 1/4	7 3/4 x 2 1/4	7 3/4 x 2 3/4
Wt. dozen, lbs.	10	11	15 1/2
Per dozen	\$3.10	3.70	5.10

Open stock.

FLAT WALL PAINT BRUSHES



Malay—Pure Black Chinese Bristles
Slightly open center, vulcanized in rubber; nickel bound, riveted, natural lacquered beaver tail handle.

Width, in.	3	3½	4
Length bristles, in.	3½	3¾	4
Wt. dozen, lbs.	5½	7	7½
Per dozen	\$20.40	28.20	36.00



Market—Pure Black Chinese Bristles
Slightly open center, vulcanized in rubber; nickel bound, riveted, red and black enamel beaver tail handle.

Width, in.	3	3½	4
Length bristles, in.	3½	3¾	4
Wt. dozen, lbs.	5	5½	6¾
Per dozen	\$18.00	22.20	31.80



Marshall—Pure Black Chinese Bristles
Open center, vulcanized in rubber; nickel bound, riveted, red and black enamel peerless style handle.

Width, in.	2½	3	3½	4	5
Length bristles, in.	2¼	2½	2¾	3	3½
Wt. dozen, lbs.	3	4	4¾	5½	8
Per dozen	\$6.60	7.80	9.60	12.00	30.00

FLAT STUCCO OR WALL BRUSHES



Ludlow Stucco—Pure Black Chinese Bristles

Solid, extra row of bristles set in center, vulcanized in rubber; black leather bound, single nailed; natural lacquered handle.

Width, in.	3½	4
Length bristles, in.	4¼	4½
Wt. dozen, lbs.	6¼	7¼
Per dozen	\$57.60	69.60

FLAT PAINTERS DUSTERS



Pure Black Chinese Bristle Casing
Middle mixture of black Chinese bristle and horsehair, individual knots vulcanized into block; natural lacquered round handle.

Dunbar—Size 26, 4¼ in. wide, 4¼ in. length of bristles;	Per dozen
wt. per dozen 6¾ lbs.	\$48.00
All above, one-half dozen in a box.	

FLAT VARNISH BRUSHES



Foster—Pure Black Chinese Bristles

Regular chisel, vulcanized in rubber; tapered nickel steel ferrule, natural lacquered handle.

Width, in.	2	2½	3
Length bristles, in.	2½	3¾	3¾
Wt. dozen, lbs.	3¼	4¼	5
Per dozen	\$12.60	21.00	30.00



Felden—Pure Black Chinese Bristles

Chiseled, vulcanized in rubber; nickel bound, riveted, natural lacquered panel style handle.

Width, in.	1	1½	2	2½
Length bristles, in.	2	2½	2¾	2¾
Wt. dozen, lbs.	1	1½	2½	3
Per dozen	\$3.00	3.60	6.00	8.40



Forge—Pure Black Chinese Bristles

Chiseled, vulcanized in rubber; nickel bound, riveted, red and black enamel flat handle.

Width, in.	1	1½	2	2½
Length bristles, in.	2	2	2¼	2¼
Wt. dozen, lbs.	1¼	1¾	2½	2½
Per dozen	\$1.80	2.40	4.20	6.00



Fisk—Pure Black Chinese Bristles

Chiseled, vulcanized in rubber; nickel bound, red and black enamel handle.

Width, in.	1	1½	2
Length bristles, in.	2	2	2
Wt. dozen, lbs.	¾	¾	1¾
Per dozen	\$1.20	1.80	2.40



Pure Black Chinese Bristles

Chiseled, vulcanized in rubber; nickel bound, red and black enamel handle. An excellent touch-up brush.

Fitsall—½ in. wide, 1½ in. length of bristles; wt. per dozen	Per dozen
¾ lb.	\$1.20

OVAL SASH TOOLS



Swan—Pure Black Chinese Bristles

Chiseled, vulcanized in rubber; seamless oval nickel ferrule, riveted, natural lacquered round handle.

Nos.	2	4	6	8	10
Width, in.	½	¾	1	1½	1¾
Length bristles, in.	1½	1¾	1¾	2¼	2¾
Wt. dozen, lbs.	¾	1¾	1¾	2	2½
Per dozen	\$2.40	3.00	4.20	5.40	7.80

GLUE BRUSHES



Mikado—Pure Black Chinese Bristles

Cement set; seamless nickel ferrule, iron rat tail handle, black stripe.

Nos.	1	2	3	4	5	6	8
Diam., in.	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8
Length bristles, in.	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
Wt. dozen, lbs.	7 1/2	8 1/2	9 1/2	10 1/2	11 1/2	12 1/2	13 1/2
Per dozen	\$3.60	4.80	6.00	7.20	10.20	14.40	17.40

One dozen in a box.

STENCIL BRUSHES



Salonika—Pure Black Chinese Bristles

Vulcanized in rubber; flag end cut back solid; nicked steel ferrule, natural lacquered handle.

Nos.	4	6	8	10
Diam., in.	1 1/8	1 1/4	1 1/2	1 3/4
Length bristles, in.	1 1/8	1 1/4	1 1/2	1 3/4
Wt. dozen, lbs.	1 1/2	2 1/2	3	4 1/2
Per dozen	\$4.20	6.60	7.80	9.00

One dozen in a box.

MARKING BRUSHES



Camel Hair, Fairly Stiff

Tin ferrule, plain handle.

Nos.	1	2	3	4	5	6
Wt. dozen, oz.	5	6	7	7	8	8
Per dozen	\$1.20	1.20	1.80	1.80	2.40	3.00

One dozen in a bundle.

PAPER HANGERS' SMOOTHING BRUSHES



Two Rows Stiff Black Horse Hair, Wire Fastened

No.	6—12 in. wide, 1 1/8 in. length of bristles; wt. per dozen
7 lbs.	\$9.60

One-half dozen in a box.

WHITEWASH BRUSHES



Jim Crow—Black Bristle Outside, Mixed Middle

Tin ferrule, varnished hardwood block.

Nos.	7	8
Width, in.	7	8
Length bristles, in.	2 3/4	3
Wt. dozen, lbs.	7 1/2	9
Per dozen	\$10.80	13.20

One-half dozen in a box.

WHITEWASH BRUSHES



White Tampico Fibre Filling

Nickel band, natural lacquer finished hardwood block.

Per dozen

Lenape—7 in. wide, 3 in.

length bristles, 2 rows;

wt. per dozen 9 lbs. \$4.22



Gray Horse Hair and Fibre Border, Light Gray Fibre Filling

Nickel band, natural lacquer finished hardwood block.

Per dozen

Keet—7 in. wide, 3 3/8 in.

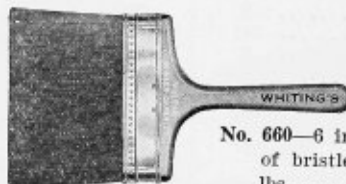
length of bristles, 3

rows; wt. per dozen 8

lbs. \$6.60

All above, one dozen in a box.

KALSOMINE BRUSHES



"Atlantic" Black Bristles

Metal ferrule, varnished handle.

Per dozen

No. 660—6 in. wide, 3 1/8 in. length

of bristles; wt. per dozen 9 1/2

lbs. \$30.00



Light Gray Horse Hair Filling, Tampico Blend Center, Silver Gray Horse Hair Border

Nickel band, natural lacquer finished handle.

Per dozen

Singac—7 in. wide, 3 3/8 in.

length of bristles, 4 rows;

wt. per dozen 13 lbs. \$11.00

All above, one-half dozen in a box.

ROOFING BRUSHES



No. 500—Best Grade Tampico Fibre

Special oil-proof setting; rust-proof nickel band, natural lacquer finished hardwood block.

Size 3 Knot 4 Knot

Width, in. 6 8

Length bristles, in. 3 1/2 3 1/2

Wt. dozen, lbs. 13 1/2 17 1/2

Per dozen \$9.00 11.40

One dozen in a box.

Gray Bristle Casing, Gray Horse Hair and Fibre Center

Oil-proof setting; wire ferrules, oval shape, unvarnished hardwood block. Not intended for use in hot tar.

Size	3 Knot	4 Knot
Width, in.	6 1/4	8
Length bristles, in.	3 1/2	3 1/2
Wt. dozen, lbs.	13 1/2	19
Per dozen	\$33.00	43.80

One-half dozen in a box.

PREPARED PAINT

PIONEER

For exterior surfaces, Pioneer Prepared Paint is recognized as the highest quality. Manufactured on a most up-to-date formula, assures the user durability, great spreading capacity and attractive appearance. A better exterior paint at any price cannot be made.

Colors

No. 105—Outside White	No. 72—Pink	No. 7—Pure Brown
No. 104—Black	No. 20—Med. Blue	No. 90—Light Green
No. 8—Light Gray	No. 42—Steel Blue	No. 44—Sea Jade
No. B1—Light Lead	No. 17—Cr'm White	No. 38—Med. Green
No. B3—Bluestone	No. 18—Ivory	No. 401—Green
No. 5—Slate	No. R1—Straw	No. 304—Moss Green
No. 31—Fawn	No. 14—Colonial Yellow	No. 81—Red
No. 89—Buff	No. T1—Brown Pink	No. 93—Maroon
No. 82—Pearl	No. 40—Terra Cotta	No. 305—Cherry Red or Vermillion

Price Per Can

Size cans	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	12	12	6	4
Wt. case, lbs.	30	60	60	80
Regular Colors and White	\$0.55	1.00	1.85	3.25
No. 44—Sea Jade	1.05	1.75	3.40	6.50

Note—5 gallon cans, 10 cents; half barrels, 15 cents; barrels 20 cents less per gallon than 1 gallon price.

Color Cards Furnished on Request

WALL TONE

PIONEER

A fine washable, durable, sanitary flat finish for use in the office, public building, school, or in the home for living rooms, dining rooms or bedrooms.

Colors

Pearl Gray	Buff
French Gray	Light Blue
Pink	White
Tan	Brown
Old Rose	Ivory
Light Green	Cream
Dark Green	



Size cans	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	12	12	6	4
Wt. case, lbs.	25	50	50	66½
Per can	\$0.50	.80	1.45	2.65

Color Cards Furnished on Request

SEMI-GLOSS WALL FINISH

PIONEER

The ideal finish for walls in offices, schools, public buildings, as well as living rooms, dining rooms and bedrooms in the home. Dries to a soft, lustrous finish.

Colors

Soft Jade	White
Erie Blue	Gray Dawn
Greenbrier	Fan Tan
India Ivory	Clifstone
Canton Biege	



Size cans	1 qt.	½ gal.	1 gal.
Cans in case	12	6	4
Wt. case, lbs.	50	50	66
Per can	\$0.95	1.80	3.30

Color Cards Furnished on Request.

INTERIOR GLOSS WALL FINISH

PIONEER

The ideal gloss finish for kitchen, walls and woodwork. Covers well, works very easily—extremely economical.

Colors

Pale Jade	Byrd White
Lido Blue	Silver Fox
Mikado Jade	Old Ivory
Cream Biege	Evenglo
Beach Tan	



Size cans	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	12	12	6	4
Wt. case, lbs.	25	50	50	66
Per can	\$0.60	1.10	2.00	3.75

Color Cards Furnished on Request.

WALL SEALER

PIONEER

An ideal sealer for use on green walls or on old dried out ones. A real insurance against a poor job.

Size cans	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	12	12	6	4
Wt. case, lbs.	30	60	60	80
Per can	\$0.55	.85	1.50	2.75

GLOSS ENAMEL

PIONEER QUICK DRYING

A high-gloss attractive, durable finish for use indoors or out, on woodwork, furniture, automobiles, bicycles, toys, etc.

Made from the highest quality materials, assures the greatest possible durability, hence, is ideal for bathrooms and kitchens, where repeated washing sometimes becomes necessary.



Colors

Silver Gray	Ivory	Cream
Light Blue	Sea Jade	Black
French Gray	Light Green	Emerald Green
Orchid	Empress Yellow	Bright Red
Orange	Chinese Red	Blue Gray
Wicker Brown	Old Rose	White

Size cans	½ pt.	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	16	12	12	6	4
Wt. case, lbs.	16	25	50	50	66
Regular Colors	Per can \$0.45	.75	1.35	2.55	4.75
Sea Jade	Per can .60	1.00	1.80	3.45	6.50

Color Cards Furnished on Request.

ENAMEL UNDERCOAT WHITE

PIONEER

An ideal undercoat since it levels out in excellent fashion, covers well and dries hard so that it may be easily sanded.

Size cans	½ pt.	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	16	12	12	6	4
Wt. case, lbs.	14	21	42	42	56
Per can	\$0.35	.60	1.05	1.90	3.45

SASH BLACK

PIONEER

A black finish primarily for use on window sash and frames. Made for exterior use on a spar varnish base that insures real durability under all weather conditions.

Size cans	½ pt.	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	16	12	12	6	4
Weight case, lbs.	15	23	45	45	60
Per can	\$0.40	.65	1.15	2.10	3.70

ROOF AND EXTERIOR FINISHES PIONEER



Whether it is a Black Asbestos Roof Coating or Red Oxide Paint for a roof—Aluminum Paint for wood, metal or masonry surfaces outside, there is a particular Pioneer product to fill the bill. Durability here is the primary factor and an exterior product bearing the Pioneer label is guaranteed to give the results intended.

METALLIC PAINT

Size cans	1 qt.	1 gal.
Red and Brown	\$0.60	\$1.90
Black	.65	2.10
Gray and Green	.75	2.40
560 Red Oxide		2.35
Red Lead Roof	1.10	3.75
Flat Brick Red		2.60
509 Graphite		2.90
510 Graphite		2.40
594 Graphite		2.25
189 Black Stack		1.35
1884 Red Lead		3.75
Acid Proof Black		1.85
Pure Linseed Oil	.90	3.00

ALUMINUM PAINT

Size cans	1 qt.	1 gal.
1982 Ready Mixed	\$1.20	\$4.00
Compartment can	1.25	4.35
Reducer		2.70

CAULKING COMPOUND

Size cans	1 qt.	1 gal.
Per can	\$0.75	\$2.25

ZONE MARKING PAINT

Size cans	1 gal.
White	Per can \$2.25
Yellow	Per can 2.25
Orange	Per can 2.25

ASBESTOS ROOF COATINGS

Size containers	1 gal.	5 gal.	½ bbl.	1 bbl.
Black	Per gallon \$0.75	0.60	0.55	0.50
Red	Per gallon 1.60	1.45	1.40	1.35
Green	Per gallon 2.15	2.00	1.95	1.90

ASBESTOS ROOF CEMENT

Size container	1 lb.	5 lb.	10 lb.	50 lb.	½ bbl.	1 bbl.
Black	Per pound \$0.15	.12	.11½	.07½	.07	.06½

Note—Above Roof and Exterior Finishes are packed 12 quarts or 4 gallon cans to the case.

SHINGLE STAIN PIONEER

A high grade preservative stain for shingles. Made from highest grade materials; it is very durable and highly protective.

Colors

No. 301—Light Moss Green	No. 144—Dark Walnut
No. 320—Dark Red	No. 209—Chrome Green
No. 308—Silver Gray	No. 363—Dark Brown

Size container	1 gal. can	5 gal. can	½ bbl.	1 bbl.
Cans in case	4	1		
Wt. case, lbs.	40	50	265	525
Per gallon	\$1.65	1.55	1.50	1.45

Color Cards Furnished on Request.

STUCCO TONE PIONEER

The most desirable coating that can be secured for decorating and damp-proofing cement, concrete, brick, stucco and other masonry surfaces above the ground.

Colors

No. 143—Bedford Gray	No. 147—Buff
No. 144—Portland Gray	No. 148—Brown
No. 145—Concrete Gray	No. 141—Red
No. 146—Cream	No. 142—Green
No. 140—White	

Size cans	1 gal.	5 gal.
Cans in case	4	1
Wt. case, lbs.	75	90
Per gallon	\$3.75	3.65

Color Cards Furnished on Request.

STUCCO TONE LIQUID

Used for thinning Stucco Tone.

Size can	1 gal.
Cans in case	4
Wt. case, lbs.	60
Per can	\$3.00

PASTE HARD WOOD FILLER

PIONEER

Manufactured from the best grade of material known. It produces an exceedingly smooth, level surface on open grained woods and can be varnished over in a way that will prove most desirable.

Colors

	Light Oak	Medium Oak	Dark Oak
Size cans	½ pt.	1 qt.	1 gal.
Cans in case	16	12	4
Wt. case, lbs.	15	45	60
Per can	\$0.25	.85	3.00

VARNISH FLOOR PAINT



PIONEER

Made primarily to be walked upon on either indoor floors or porch floors, it is yet fine enough for wood work, radiators, furniture, etc. Dries quickly to a high-gloss finish.

Colors

Dark Oak	Dust
Light Oak	Walnut
Silver Gray	Mahogany
Lead	Evergreen
Slate	

Size cans	1 pt.	1 qt.	½ gal.	1 gal.
Cans in case	12	12	6	4
Wt. case, lbs.	20	40	40	54
Per can	\$0.60	1.10	2.00	3.75

Color Cards Furnished on Request.

COLORED VARNISH STAIN

PIONEER

"Pioneer" Colored Varnish produces a stained and varnished effect with one combination and is greatly desired for renewing old work, floors and furniture, as well as for finishing new work of any nature.

Being transparent it permits the grain of new work to show, as it does in case of old work that has been finished with a clear varnish or stain.

Where the color of the old work is to be changed, Ground Color should be used first.

Colors

Clear	Walnut
Light Oak	Dark Mahogany
Dark Oak	

Size cans	½ pt.	1 pt.	1 qt.	1 gal.
Cans in case	16	12	12	4
Wt. case, lbs.	10	15	30	40
Per can	\$0.40	.70	1.20	4.05

Color Cards Furnished on Request.

CRACK FILLER SAVOGRAN



A patented patch and repair material in powder form. Fills holes, cracks, dents, repairs furniture, tightens loose handles, knobs, fixtures, etc. Easy to handle, hardens quickly and stays put. Will not shrink. Takes paint or stain or can be pre-colored with dry color.

Size cans, lbs.	1	5
Dozen in carton	2	1
Wt. dozen, lbs.	15	70
Per dozen	\$3.60	15.00
35 Pound Steel Pail		\$7.70
Open stock		

WOOD PUTTY SAVOGRAN



A plastic product in powder form for repairing wood. Can be cut, drilled, carved, planed, cast, molded, etc. Can be painted, stained or pre-colored with dry color. Will not shrink.

Size cans, lbs.	1	3
Dozen in carton	2	1
Wt. dozen, lbs.	30	46
Per dozen	\$4.80	12.60

PLASTIC WOOD



Plastic wood is wood compounded with a chemical binder in the form of paste, which hardens on exposure to the air. After hardening, it has all the characteristics of wood except grain and will not chip, crumble, crack or disintegrate.

In Tubes—Natural Color

1x4½ in. Tubes—Cap. 1½ oz.; wt.	Per dozen
per dozen 1½ lbs.	\$3.00
One dozen in a carton.	

In Cans—Natural Color

Size cans, lbs.	1	1
Dozen in carton	3	1
Wt. dozen, lbs.	4½	16
Per dozen	\$4.20	12.00

PLASTIC WOOD SOLVENT



Renews Plastic Wood or Tile Cement that has hardened in the can, gives them the desired consistency and is valuable for cleaning hands or tools after using Plastic Wood or Tile Cement.

Size, cans	3 oz.	8 oz.	1 qt.
Dozen in carton	1	1½	1
Wt. dozen, lbs.	2	10	30
Per dozen	\$3.00	6.00	18.00

TILE CEMENT WHITE PLASTIC WOOD



A pure white water-proof preparation that can be easily and quickly used to hold loose bathroom or kitchen tiles and repair cracked porcelain or enamel.

Per dozen	
14 Pound Cans—Wt. per doz. 5 lbs.	\$4.20
Three dozen in a carton.	

LINOLEUM FINISH

LIN-X



An improved finish for printed or inlaid linoleum, also congoletum. Produces a beautiful high gloss finish, which does not discolor the most delicate pattern. Will not turn white and stands the hot water and alcohol test.

Dries in 4 to 6 hours, with a tough, elastic, durable finish.

Size cans	1 pt.	1 qt.
Cans in case	12	12
Wt. case, lbs.	15	29
Per can	\$0.90	1.55
Size cans	½ gal.	1 gal.
Cans in case	6	6
Wt. case, lbs.	27	54
Per can	\$2.95	5.00

GLO-COAT

JOHNSON'S



Needs no rubbing or polishing. A remarkable new finish, applied with a cloth or Johnson applicator, that dries in 20 minutes and shines as it dries.

For linoleum, rubber asphalt base, composition and varnished, shellacked or painted floors.

Size cans	½ pt.	1 pt.	1 qt.
Cans in case	72	48	24
Wt. case, lbs.	47	71	67
Per can	\$0.25	.75	1.30
Size cans	½ gal.	1 gal.	
Cans in case	12	6	
Wt. case, lbs.	65	64	
Per can	\$2.40	4.00	

PREPARED WAX

JOHNSON'S PASTE



Gives perfect results over any finish. It imparts a hard, dry, velvety polish which is impervious to water, dust, scratches, heel marks, finger prints, etc.

For polishing floors of all kinds, wood, linoleum, tile, marble, etc.

In Friction Top Tin Cans

Size cans, lbs.	½	1	4
Cans in case	144	100	24
Wt. case, lbs.	127	151	129
Per can	\$0.50	.85	3.00

PREPARED WAX JOHNSON'S LIQUID



The new easy way to wax floors and linoleum is with Johnson's liquid wax. It is also the ideal woodwork and furniture polish — unsurpassed for automobiles.

In Glass Bottles

Size bottles	½ pt.	1 pt.	1 qt.
Bottles in case	48	24	12
Wt. case, lbs.	48	44	40
Per bottle	\$0.50	.75	1.40

DANCING FLOOR WAX



JOHNSON'S POWDERED

Sprinkled lightly over the floor, this product quickly provides a perfect dancing surface. It is free from dust and will not ball under dancers' feet, or discolor floor or harm the most delicate frock. Spreads quickly.

In Shaker Top Can

Size cans, lbs.	¼	½	1
Cans in case	48	48	48
Wt. case, lbs.	24	41	71
Per can	\$0.35	.50	.85

Size cans, lbs.	5	20
Cans in case	6	1
Wt. case, lbs.	42	29
Per can	\$4.00	12.00

FURNITURE POLISH O-CEDAR



Bottle Can

Cleans As It Polishes

Quickly produces a rich, dry, lasting velvet lustre without any trace of grease or streaks.

The safest and finest polish for furniture, wood work, autos, polish mops, etc.

In Bottles

Size bottles, oz.	4	12
Dozen in case	2	2
Wt. per dozen, lbs.	16½	39½
Per dozen	\$3.00	6.00

In Cans

Size cans	1 qt.	½ gal.	1 gal.
Dozen in case	1	1	½
Wt. per dozen, lbs.	26¼	50	49¼
Per dozen	\$15.00	24.00	36.00

METAL POLISH BLUE RIBBON



A safe polish for use on brass, nickel, monel metal, nickel-silver, chromium, aluminum, etc. Shine lasts longer because it has the protecting film that checks oxidation.

In screw top tin cans.

Size cans	..... 1/4 pt.	1/2 pt.	1 pt.
Dozen in case	..... 6	3	2
Wt. case, lbs.	..... 26	24	30
Per dozen	.....\$1.80	3.00	5.40

Size cans	..... 1 qt.	1/2 gal.	1 gal.
Dozen in case	..... 2	1	1/2
Wt. case, lbs.	..... 55	53	52
Per dozen	.....\$9.60	13.60	22.40

SOLARINE



Cannot be equaled for polishing all kinds of metals, such as gold, silver, brass, nickel, copper, zinc, bronze, aluminum, tin, etc. Absolutely harmless to all metals.

Nos.	..... 0	1	2
Size cans	..... 1/4 pt.	1/2 pt.	1 pt.
Dozen in case	..... 12	6	3
Wt. case, lbs.	..... 47	53	54
Per dozen	.....\$1.80	3.00	5.40

Nos.	..... 3	4	5
Size cans	..... 1 qt.	1/2 gal.	1 gal.
Dozen in case	..... 1	1/2	1/2
Wt. case, lbs.	..... 38	36	68
Per dozen	.....\$9.00	15.00	27.00

WINTERTON PASTE



A quick cleaner, a rapid finisher, free from acid or gritty properties.

For Steel

1 Pound Cans—25 cans in a case\$6.00
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For Brass

1 Pound Cans—25 cans in a case\$6.00
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LUBRICATING OILS THREE-IN-ONE



No. 1

No. 3

No. 8

Lubricates, cleanses, polishes and prevents rust.

Has no equal for sewing machines, guns, bicycles, typewriters and other mechanism.

In Oilright Cans

No. 1—In 1 oz. cans; wt. per dozen	Per dozen
2 lbs.	.....\$1.20
One dozen in a carton.	

In Handy Cans

No. 3—In 3 oz. cans; wt. per dozen	Per dozen
4 lbs.	.....\$3.00
One dozen in a carton.	

In Bottles

No. 8—In 8 oz. bottles; wt. per dozen	Per dozen
17 lbs.	.....\$6.00
One dozen in a carton.	

Industrial Size

No. 10—In 1 gal. cans; wt. each 8 1/2 lbs.	Each
.....	.....\$6.00
Four in a carton.	

GULFOIL



A high quality, highly refined mineral oil. Compared with other light oils, Gulfoil has better body, doesn't gum and lubricates longer. Will not deteriorate.

Handy can with spout makes it convenient for use in camps, homes, offices and factories.

Nos.	..... 2	4
Size can, oz.	..... 2	4
Dozen in carton	..... 1	1
Wt. dozen, lbs.	..... 3	5
Per dozen	.....\$1.80	3.00

GULF ELECTRIC MOTOR



Made exclusively for 1/8 to 10 horse power electric motors; fills a long felt need for a heavier or more viscous oil.

Free from all impurities and will not gum, stick or oxidize. Ideal lubricant for bearings and motors of washing machines, electric motors, ironers, etc.

No. 5—In 1/2 pt. cans; wt. per dozen	Per dozen
8 1/2 lbs.	.....\$6.00
One dozen in a carton.	

CLOSET BOWL CLEANER SANI-FLUSH



A chemical powder for keeping closet bowls clean, odorless and sanitary, will not injure bowl or connections. Cleans without scrubbing or scouring. Can also be used for cleaning auto radiators.

Size can, oz.	..... 10	22
Dozen in carton	..... 2	1
Wt. dozen, lbs.	..... 20	19
Per dozen	.....\$1.20	3.00

WASTE PIPE CLEANER DESOLVO



Works fast and cleans the drain pipe thoroughly and easily. Will not harden in the pipes nor injure the fixtures or connections. May be used directly from can in cold water or on ice.

Improved Formula—Without objectionable odor or fumes, in 12 oz. friction top cans; wt. per dozen	Per dozen
12 lbs.	.....\$3.00
Triple Strength—In 1 lb. cans; wt. per dozen 15 lbs.	..... 4.20

Two dozen in a carton.

BLACK ENAMEL RUTLAND



For use on stove pipes, ovens, auto tops, gas stoves, etc. Dries with a hard glossy finish and does not become tacky. Has high heat resistance. In friction top tin cans.

Size cans, pts.	..... 1/2	1
Dozen in case	..... 2	2
Wt. case, lbs.	..... 15 1/2	29 1/2
Per dozen	.....\$3.00	4.80

WATER GLASS RUTLAND



Especially made for preserving eggs. Low in alkali content. Eggs put down in Rutland water glass will keep from one to three years.

One pint is sufficient for putting down about 8 dozen eggs.

Size cans	..... 1 pt.	1 qt.	1 gal.
Dozen in case	..... 2	1	1/3
Wt. case, lbs.	..... 44	42 1/2	51 1/2
Per dozen	.....\$2.70	4.00	14.00

PATCHING PLASTER RUTLAND



Used for repairing small breaks in plastered walls and for jointing and patching stucco and brick surfaces.

Adheres firmly to broken edges and does not shrink. Dries slowly and is easy working. White in color.

Size package, lbs.....	2½	5
Dozen in case.....	2	1
Wt. case, lbs.....	67	66½
Per dozen.....	\$3.60	6.00
Size package, lbs.....	8	15
Dozen in case.....	½	½
Wt. case, lbs.....	52½	64
Per dozen.....	\$8.40	12.00

CONCRETE PATCHER RUTLAND



For repairing holes or cracks in cement or concrete work. It comes fully prepared and needs only to be mixed with water.

Size package, lbs.....	3¼	6½
Dozen in case.....	2	1
Wt. case, lbs.....	87½	85
Per dozen.....	\$3.60	6.00

FURNACE CEMENT RUTLAND



A black asbestos compound for making joint smoke-tight and gas-tight when installing or resetting hot air furnaces and oil burning equipment. Also for making small repairs to coal stoves, ranges and stove brick.

Size can, lbs.....	1	2	5
Dozen in case.....	2	2	1
Wt. case, lbs.....	29½	56½	69
Per pound.....	\$0.18	.17	.14
Size container.....	10 lb. can	25 lb. pail	
No. in case.....	6	1	
Wt. case, lbs.....	68	28	
Per pound.....	\$0.14	.14	

STOVE LINING RUTLAND



Used for patching or replacing of brick or cast iron linings in kitchen ranges or setting fire brick in installing oil burner equipment.

In powder form and needs only water to be ready to use. Fuses at a comparatively low point, producing a true brick which fits any stove.

Size package, lbs....	2½	5	8
Dozen in case.....	2	1	½
Wt. case, lbs.....	65½	66½	52½
Per dozen.....	\$3.60	6.00	8.40

SOOT DESTROYER BOYER ZINC



Removes all soot from pipes, flues and chimneys; leaves the surface inside of stove, furnace or boiler clean.

Saves time, coal, work and worry.

No. BZ—12 oz. package; wt. per case 33 lbs.....	Per dozen
Three dozen in a case.	\$3.00

GAUGE GLASS CUTTERS CHESTERTON



Nickel Plated

Steel cutting wheel. The sliding lever can be placed close to the work, thus obtaining more power.

Chesterton—9 in. long over all, cuts to 6 in. long; wt. each 6 oz.....	Each
One in a carton.	\$2.50
Extra Cutter Wheels.....	Per dozen \$1.80

GLASS CUTTERS LENOX



Extra hard, hand honed cutting wheel. Polished head, blue enameled handle with red tip.

Depression on back of handle exactly fits the contour of finger, insuring a secure and comfortable grip on the cutter.

Lenox—5 in. long; wt. per dozen 1 lb.	Per dozen
One in a box, one dozen in a display carton.	\$3.00

GLASS CUTTERS GENUINE RED DEVIL



Machine made, uniform, alloy steel wheel, monel metal over size axle. Polished steel head, red enameled handle.

No. 024—5 in. long; wt. per dozen 1 lb.	Per dozen
One in carton, one dozen in display carton.	\$2.81

GOODELL-PRATT



Turret Head

Turret is turned from a solid bar of selected steel with six wheel axles integral parts of the turret. Six honed and tested wheels are mounted on the turret axles. Wheel No. 1 is used until worn out, then the screw is loosened and wheel No. 2 rotated into position and so on until all six have been used.

Rust-proof turret head and screw, highly polished and nickel plated steel frame.

Hardwood handle, comfortably shaped and nicely finished in mahogany lacquer. Buffed nickel ferrule.

No. 1—5½ in. long; wt. per dozen ½ lb.	Per dozen
One in a box, one dozen in a display carton.	\$4.80
No. 10—Extra Cutter Wheels, for No. 1 cutter.....	Per dozen \$1.20

UNIVERSAL DIAMOND



Best quality diamond, nickel plated steel head, ebonized wood handle. Equipped with guide wheel to regulate pressure.

No. 8—3½ in. long; wt. each ½ lb.	Each
One in a box.	\$6.00

RED DEVIL CIRCULAR



Red enamel metal base, with rubber mat to prevent slipping. Wheels are easily changed when worn.

No. 263—Cuts circles 2 to 24 in. in diam.; steel rod graduated by sixteenths; complete with 2 extra wheels; wt. per dozen 6 lbs.	Per dozen
One in a box, one dozen in a carton.	\$21.00

STEP LADDERS

CHALLENGE



Straight Grained,
Tough Eastern
White Ash Front
Standards

Back standards
are of clear East-
ern spruce, clean
white basswood
steps. Every step
is bolted and
clamped so as to
make a break al-
most an impossi-
bility. Exceed-
ingly strong and

durable yet comparatively light in weight.
With pail shelf.

Length, ft.	3	4	5
Wt. each, lbs.	10½	14	17½
Per foot.	\$0.90	.90	.90

Length, ft.	6	7	8
Wt. each, lbs.	21	24½	28
Per foot.	\$0.90	.90	.90

Length, ft.	10	12	14
Wt. each, lbs.	35	42	49
Per foot.	\$0.90	1.40	1.40

3 to 8 feet, two; 10 to 14 feet, one
in a bundle.

ACME



Good Grade Stock,
with Shelf

A splendid gen-
eral purpose lad-
der in the low
price range. Full
rodded construc-
tion with rod un-
der each step, steel
back braces. Four
arm steel spreader
lock, double ears,
non-slip washers,
solid risers.

Width top 5½
in., width risers
2½ in., width legs
1½ in., width of
steps 3½ in.,
thickness of stock
½ in.

Length, ft.	4	5	6
Wt. each, lbs.	13	14½	19½
Per foot.	\$0.58	.58	.58

Length, ft.	7	8	10
Wt. each, lbs.	22½	26	32½
Per foot.	\$0.58	.58	.58

Open stock.

New Items of Merit are being con-
tinually added to our line.
If you do not find what you want in
this catalog

WRITE US

SINGLE LADDERS



Well Seasoned, Straight
Grained Spruce Stock,
Hickory Rungs

Ends of rungs are treated
by a patented creosoting
process which prevents them
from shrinking or rotting
out.

Rails 1½x2½ in., rungs
1½ in. diam. Wide spread
at bottom.

Length, ft.	12	14
Wt. each, lbs.	21	25
Per foot.	\$0.56	.56

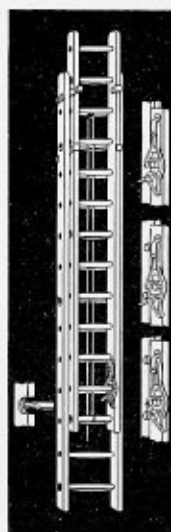
Length, ft.	16	18
Wt. each, lbs.	28	32
Per foot.	\$0.56	.56

Length, ft.	20
Wt. each, lbs.	35
Per foot.	\$0.56

Open stock.

EXTENSION LADDERS

SAMPSON



Well Seasoned,
Straight Grained
Spruce Stock,
Hickory Rungs

Ends of rungs are
treated by a
patented creosoting
process which pre-
vents them from
shrinking or rot-
ting out.

Equipped with
set of automatic
lock castings and
one set each of 2
bend and 4 bend
roller guards all
cadmium plated.
Complete with
rope and pulley.

Rails 1½x2½ in.
up to 32 ft. lengths,
longer lengths have
3 in. bottom section,
diameter of rungs
1½ in.

Length, ft.	22	24	26
Top section, ft.	10	12	12
Bottom section, ft.	12	12	14
Wt. each, lbs.	44	48	52
Per foot.	\$0.73	.73	.73

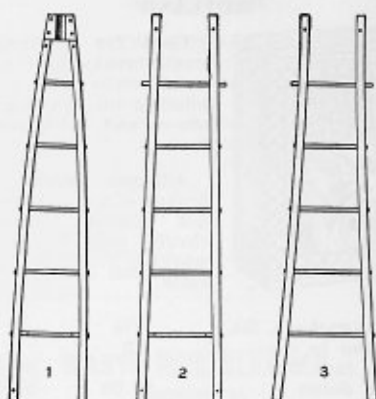
Length, ft.	28	30	32
Top section, ft.	14	14	16
Bottom section, ft.	14	16	16
Wt. each, lbs.	56	60	64
Per foot.	\$0.73	.73	.73

Length, ft.	34	36	38
Top section, ft.	16	18	18
Bottom section, ft.	18	18	20
Wt. each, lbs.	68	72	76
Per foot.	\$0.74	.74	.74

Length, ft.	40	42
Top section, ft.	20	20
Bottom section, ft.	20	22
Wt. each, lbs.	80	84
Per foot.	\$0.74	.74

Open stock.

WINDOW CLEANERS LADDERS



Clear Spruce, Selected Rungs

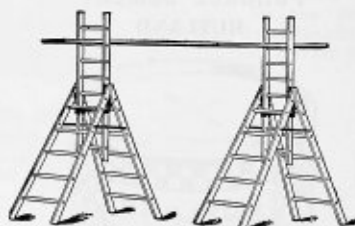
A convenient ladder for window clean-
ing purposes or where a ladder has to be
carried from one place to another. Sec-
tion 6 ft. long, 13¼ in. wide over all at
point of connection, 1½x2½ in. side rails.

Top section is brought close together
and provided with hollow piece to fit on
corner of window sash and door jamb.

Per section

No. 1—Top Section; wt. per section	
9 lbs.	\$4.00
No. 2—Middle Section; wt. per sec- tion 9 lbs.	4.50
No. 3—Bottom Section; wt. per sec- tion 9 lbs.	4.50

Open stock.

PAINTERS' TRESTLES
RICH EXTENSION

Selected Spruce Stock, Hickory Rungs

The length of the trestle is exclusive of
the extension part.

The extension part of each trestle is
the same length as the trestle itself and
will extend to within 2 feet of its own
length.

Length, ft.	6	8	10
Wt. each, lbs.	42	56	70
Each	\$16.55	20.70	24.80
Length, ft.	12	14	16
Wt. each, lbs.	84	98	112
Each	\$28.95	33.10	37.25

Open stock.

COOKS' FORKS REMINGTON



Heat treated and highly finished heavy gauge steel tines, full tang; black box-wood handle, three telescope rivets.

Per dozen

No. K23612½—Length over all 12½ in.; wt. per dozen 4½ lbs.....\$18.00

One-half dozen in a box.

POT FORKS REMINGTON



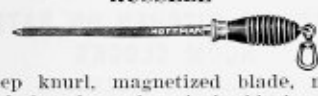
Mirror finished stainless steel tines and shank; one-piece cocobolo handle, two telescope rivets.

Per dozen

No. K1355½—Length less handle, 5½ in.; wt. per dozen 2½ lbs.....\$12.00

One-half dozen in a box.

BUTCHER STEELS RUSSELL



Deep knurl, magnetized blade, nickel plated ferrule and swivel; black enameled handle.

Nos.	5424-10	5424-12	5424-14
Length blade, in..	10	12	14
Wt. per doz., lbs..	8½	10½	11½
Per dozen	\$12.00	14.00	17.00

One-half dozen in a box.

KNIFE SHARPENERS CARBORUNDUM



Cut Clean and Fast

Particularly adapted for use with stainless steel cutlery. Will not mar or scratch the finish. Bevel or crown in center. Made of genuine Carborundum brand silicon carbide.

Per dozen

No. 66—Length over all 4¾ in., blue, yellow or green handles; wt. per dozen 2½ lbs.....\$4.20

One dozen in a standard package.



A shaft of carborundum, firmly secured to handle by a steel rod extending its entire length; provides the ideal sharpener for all household knives.

Per dozen

No. 76—Length over all 14 in., blue, yellow, green or black handles; wt. per dozen 7 lbs.....\$6.00

One dozen in a standard package.

PUTTY KNIVES REMINGTON



Highly finished steel blade, hardened and tempered, 1¼ inches wide, two-piece cocobolo handle, metal bolster, three brass telescope rivets.

Nos.	F-1621¼	F-1621¼-F
Blade	Stiff	Flexible
Wt. per doz., lbs....	2	1½
Per dozen	\$5.60	5.60

One-half dozen in a box.



Highly finished steel blade, hardened and tempered, 1¼ inches wide; two-piece cocobolo handle, three brass telescope rivets.

Per dozen

No. F-1611¼—Stiff blade; wt. per dozen 1½ lbs.....\$4.00

One-half dozen in a box.

RUSSELL



Professional Pattern

Heavy gauge high grade steel blade, 1½ inches wide; large cocobolo handle, long lap, metal bolster.

Nos.	1540	1540-E
Blade	Stiff	Elastic
Wt. per dozen, lbs....	2½	2½
Per dozen	\$5.40	6.00

One dozen in a box.



High grade steel blade, 1¼ inches wide; cocobolo handle; long lap metal bolster.

Nos.	150	150E
Blade	Stiff	Elastic
Wt. per dozen, lbs....	2½	1½
Per dozen	\$5.40	6.00

One dozen in a box.

UNIVERSAL



Fine quality crucible steel blade, 1¾ inches wide; cocobolo handle, metal bolster.

Per dozen

No. 201—Half elastic blade; wt. per dozen 1¼ lbs.....\$3.00

One dozen in a box.

BRIDGEPORT



Strong, tempered cutlery steel blade, 1¾ inches wide, oval-shaped red hardwood handle, nickel plated ferrule.

Per dozen

No. 135—Stiff blade; wt. per dozen 1½ lbs.....\$1.20

One dozen in a box.

SCRAPING KNIVES REMINGTON



Highly finished steel blade, hardened and tempered, 3 inches wide; burnt beech-wood handle, metal ferrule.

Nos.	F-1663	F-1663-F
Blade	Stiff	Flexible
Wt. per dozen, lbs....	2½	2½
Per dozen	\$5.60	5.60

One-half dozen in a box.

Chisel Edge

Otherwise same as above.

Per dozen

No. F-1673—Stiff blade, 3 in. wide; wt. per dozen 2½ lbs.....\$8.00

One-half dozen in a box.



Highly finished steel blade, hardened and tempered, 2 in. wide; two-piece cocobolo handle, metal bolster, brass rivets.

Nos.	F-1632	F-1632-F
Blade	Stiff	Flexible
Wt. per dozen, lbs....	2½	2
Per dozen	\$8.00	8.00

RUSSELL



Full forged high carbon steel blade and bolster; cocobolo handle.

No. 525-S—Stiff Blade

Width blade, in.	2½	3	3½	4
Wt. per doz., lbs.	3¼	3½	3½	4
Per dozen	\$10.80	11.40	12.00	13.20

No. 525-E—Elastic Blade

Width blade, in.	2½	3	3½	4
Wt. per doz., lbs.	3	3¼	3¼	3½
Per dozen	\$11.40	12.00	13.20	14.40

One-half dozen in a box.

P. B.



Rolled, tempered steel blade; natural beech-wood handle, rust-proof screws.

Nos.	125-3½	125-4
Width blade, in....	3½	4
Wt. per dozen, lbs....	4½	4½
Per dozen	\$1.50	1.50

One dozen in a box.

ELECTRIC ALARM CLOCKS**ALADDIN, TELECHRON**

Square Metal Luminous Dial
Self-starting alarm, radium painted numerals and hands. Alarm setting hand and circle. 4 1/2 in. high, bezel metal gold finish. Molded plastic case and lacquered metal bezel frame.

Furnished with 6 ft. art silk cord attached.

- Each
No. 7F65-LBK—Black case, ivory feet and bezel.....\$5.95
No. 7F65-LI—Ivory case, black feet and bezel.....6.50
Shipping weight each 2 1/4 pounds.
Six in a standard package.

DEPUTY, TELECHRON

Square Metal Plain Dial
Self-starting alarm, cream background, black and gray numerals. Alarm setting hand and circle. 4 1/2 in. high, molded case with lacquered outer bezel and base. Furnished with 6 ft. art

- silk cord attached.
Each
No. 7F65-BK—Black case, antique ivory feet and bezel.....\$4.95
No. 7F65-I—Antique ivory case, black feet and bezel.....5.50
Shipping weight each 2 1/4 pounds.
Six in a standard package.

ELECTRIC CLOCKS**USHER, TELECHRON**

Self-starting, black characters on a light gray background. Square dial, 4 in. high, molded case and lacquered front plate and gold finished bezel. Furnished with 6 ft. art

- silk cord attached.
Each
No. CF363-BK—Black case, antique ivory front plate.....\$3.75
No. CF363-I—Antique ivory case, black front plate.....4.25
Shipping weight each 2 pounds.
Six in a standard package.

ELECTRIC CLOCKS**EMBASSY, TELECHRON**

gold lacquered finish.

Furnished with 6 ft. art silk cord attached.

- Each
No. 4F67—Shipping wt. each 1 1/4 lbs.\$6.75
Four in a standard package.

LUXOR, TELECHRON

Self-starting, imitation "Cloisonné" finish dial with modernistic, black etched Roman numerals and hands.

6 1/4 in. high, glass case with mirror finish. Metal bezel, silver finished.

- Furnished with 6 ft. art silk cord.
Each
No. 4F65-A—Amber glass case, lavender dial, black hands.....\$9.95
No. 4F65-B—Blue glass case, light blue dial, buff chrome finish hands 9.95
No. 4F65-W—Clear glass case, silver dial, black hands..... 9.95
Shipping weight each 3 pounds.
Four in a standard package.

PHARAOH, TELECHRON

Self-starting, square metal dial with satin gold center, polished gold numerals and gloss black numeral band.

6 1/4 in. high, mahogany case with vertical side inlays and Pyramid design. Buffed and lacquered gold finish metal bezel.

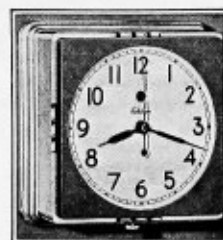
- Furnished with 6 ft. art silk cord attached.
Each
No. 4F61—Shipping wt. each 4 lbs.\$9.95
Four in a standard package.

ELECTRIC MANTEL CLOCKS**PERRY, TELECHRON**

Self-starting, metal dial with dark gold-bronze raised numerals, circular satin finish background.

8 1/8 in. high, brown mahogany case, polished lacquer finish with relief ornament. Gold finished metal bezel.

- Furnished with 6 ft. art silk cord.
Each
No. 4F03—Shipping wt. each 5 1/2 lbs.\$7.95
Four in a standard package.

ELECTRIC KITCHEN OR BATH-ROOM CLOCKS**CONSORT, TELECHRON**

Self-starting, metal dial, lacquer finished. Bold black numerals and hands.

5 3/4 in. high, chrome plated metal case with "Beetle" molded bezel.

- Furnished with 6 ft. art silk cord.
Each
No. 1F01—Available in green, ivory, white, black, blue or red; shipping wt. each 2 3/4 lbs.\$4.95
Six in a standard package.

KITCHENGUIDE, TELECHRON

Self-starting, metal dial with black characters on a light cream enamel background.

6 1/4 in. high, molded plastic case with buffed Nicral bezel.

- Furnished with 6 ft. art silk cord.
Each
No. 2F03—Available in green, antique ivory, white, black or red; shipping wt. each 2 1/2 lbs.\$4.95
Six in a standard package.

TOYS and SPORTING GOODS

We carry a complete line of Toys and Sporting Goods but due to the fact that new items are continually being added to this class of goods we have not attempted to feature our entire line in our general catalogue. Our stock includes among the following:—

American Flyer Trains and Accessories
A. C. Gilbert Line
Full Line of Globe and Garton Wheel Goods
Our Own Ridewell Bicycles
Complete Line of Bicycle Sundries and Supplies
Whitney Doll Carriages
Flexible Flyer Sleds
Keystone and Buddy "L" Steel Toys
Keystone Projectors, Films, and Furniture
Fisher Price Pull Toys
Wolverine Toys
Gund Stuffed Animals
Daisy Air Rifles
Games of all kinds
South Bend, Pflueger, Heddon and Creek Chub, Fishing
Tackle
Draper-Maynard Baseball, Basketball and Football School
and Team Equipment
Remington Arms and Ammunition
Dux-Bak Hunting Equipment
Neptune Outboard Motors
Hillerich & Bradsby "Grand Slam" Golf Equipment and Base-
ball Bats
Tommy Armour Golf Balls
Arvin Home and Auto Radios.

We cordially invite you to see our pre-season Toy and Sport-
ing Goods displays.

Joseph Woodwell Company

RIDEWELL STREAMLINE BICYCLES AN EXCLUSIVE WOODWELL PRODUCT



Men's De Luxe Model

Fully equipped double bar motor bike frame, 19 in. seat mast; new drop forged crown fork and tubular truss rods; deep ridged crown mud guards; double braces, front and rear; 7 in. one-piece heat treated crank; 26 in. all steel chrome plated rims; 26x2.125 U.S. white sidewall double tube balloon tires, or equal; B1 Messinger sponge rubber saddle or equal; Senior braced, chrome plated handlebar; No. 10 Torrington pedals or equal; zinc plated braced stand; New Departure, Morrow or Musselman coaster brake; twin head lights; electric horn, mounted in tank; self-contained tail-light in luggage carrier; new streamline, chrome plated chain guard; streamlined luggage carrier with self-contained tail light, streamlined tank with horn; 26 tooth tear drop sprocket; diamond roller chain. Available with new design CWC lock. All bright parts chrome plated.

Each

No. R618—Adult\$53.00



Men's Model

New streamlined, fully equipped, double bar tank motor bike frame, 19 in. seat mast; new drop forged crown fork and tubular truss rods; deep ridged crown mud guards, double braces, front and rear; 7 in. curved one-piece, heat treated crank; 26 in. all steel, chrome plated rims; 26x2.125 U.S. white sidewall double tube balloon tires, or equal; No. 1M Lobdell torpedo sponge rubber saddle; streamlined CWC design, chrome plated handlebar; No. 10 Torrington pedals; zinc plated braced stand; New Departure, Morrow or Musselman coaster brake; twin lights mounted in tank; streamlined luggage carrier with self-contained tail-light; chrome plated chain guard; 26 tooth tear drop sprocket; diamond roller chain. Available with new design CWC lock. All bright parts chrome plated.

Each

No. R623—Adult\$53.00



Men's Standard Model

Fully equipped, tank model motor bike frame, 19 in. seat post; drop forged crown fork with tubular curved truss rods; deep ridged crown mud guards, double braces, front and rear; 7 in. one-piece, heat treated crank; 26 in. all steel, chrome plated rims; 26x2.125 U.S. double tube balloon tires or equal; No. 1 Persons sponge rubber saddle or equal; Senior braced, chrome plated handlebar; No. 8 Torrington pedals or equal; zinc plated, braced stand; New Departure, Morrow or Musselman coaster brake; self-contained torpedo light on front fender; electric horn mounted in tank; streamlined enameled chain guard; streamlined luggage rack with ruby reflector; 26 tooth tear drop sprocket; diamond roller chain. Available with new design CWC lock. All bright parts chrome plated.

Each

No. R609—Adult\$46.00



Men's Standard Model

Double bar motor bike frame, 19 in. seat mast; drop forged crown fork with tubular curved truss rods; deep ridged crown mud guards, double braces front and rear; 7 in. one-piece heat treated crank; 26 in. all steel chrome plated rims; 26x2.125 U.S. double tube balloon tires or equal; No. 3M Lobdell sponge rubber saddle or equal; Senior braced chrome plated handlebar; No. 8 Torrington pedals or equal; zinc plated braced stand; New Departure, Morrow or Musselman coaster brake; ruby reflector on rear fender; 26 tooth tear drop sprocket; diamond roller chain. Available with new design CWC lock. All bright parts chromium plated.

Each

No. R602—Adult\$39.95

No. R402—Juvenile, 17 in. frame, 24x2.125 tires, otherwise same as above 38.50



Men's Special Model

Double bar motor bike frame, 19 in. seat mast; new drop forged crown fork without truss rods; full crown mud guards; double braced, front and rear; 7 in. one-piece heat treated crank; 26 in. all steel enameled rims; 26x2.125 Lakeside single tube balloon tires; Scout saddle; Scout handlebar, chrome plated; No. 8 Torrington pedals, or equal; zinc plated braced stand; New Departure, Morrow or Musselman coaster brake; ruby reflector on rear fender; 26 tooth tear drop sprocket; diamond roller chain. All bright parts chrome plated.

Each

No. R602S—Adult\$35.00



Juvenile Model

Juvenile double bar motorbike frame, 14 in. seat mast; drop forged crown fork with tubular curved truss rods; full crown mudguards; braces front and rear; 4 1/2 in. one-piece, heat treated crank; 20 in. all steel enameled rims; 20x2 single tube balloon tires; Fairy "CC" special spring saddle; chrome plated Scout Jr. handlebar; No. 2 Torrington pedals or equal; zinc plated stand; New Departure, Morrow or Musselman coaster brake; ruby reflector on rear fender; 18 tooth sprocket; diamond roller chain, all bright parts chrome plated.

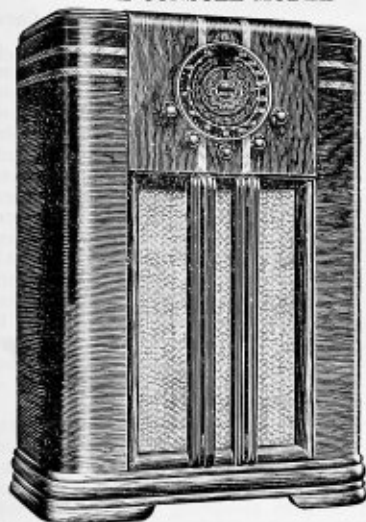
Each

No. R202—Juvenile\$35.00

WE CARRY A COMPLETE LINE OF BICYCLE ACCESSORIES, BICYCLE REPAIR PARTS, COASTER BRAKES, COASTER BRAKE REPAIR PARTS, ETC.

WRITE US FOR CATALOG AND PRICES

ARVIN HOME RADIOS
14 TUBE CONSOLE MODEL



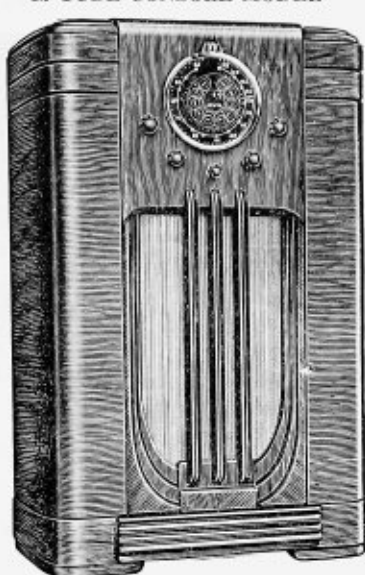
Double superheterodyne circuit; single channel frequency control with presto station changer; 14 type G tubes including electric eye; one 12 in. speaker and one 6 in. speaker; 8 1/4 in. dial; extremely wide range audio reproduction; continuously variable tone control; three bands (standard, police, short wave); 540 to 1750 KC; 1750 to 5800 KC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles. Each No. 1427—43x15 1/4 x 29 in.\$160.00

12 TUBE SUPERIOR CONSOLE MODEL



Superior console; double superheterodyne circuit; single channel frequency; control with presto station changer; 12 type G tubes including electric eye; push-pull class A output; two 8 in. speakers; continuously variable tone control; three bands (standard, police, short wave); 540 to 1750 KC; 1750 to 5800 KC; 5.4 to 18.0 MC; 105-125 volt, 60 cycles; 7 1/4 in. dial. Each No. 1247—26x35 1/2 x 15 1/4 in.\$140.00

ARVIN HOME RADIOS
12 TUBE CONSOLE MODEL



Double superheterodyne circuit; single channel frequency control with presto station finder; 12 type G tubes including electric eye; push-pull class A output; 12 in. speaker; 7 3/4 in. dial; continuously variable tone control; three bands (standard, police, short wave); 540 to 1750 KC; 1750 to 5800 KC; 5.8 to 18.0 MC; 105-125 volts; 60 cycles. Each No. 1237—41 1/2 x 26 x 15 in.\$99.95

8 TUBE CONSOLE MODEL



8 type G tubes including electric eye; 10 in. speaker; 6 in. dial; continuously variable tone control; traveling spotlight station finder; three bands (standard, police, short wave); 540 to 1750 KC; 1750 to 5800 KC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles. Each No. 828—39x13 1/2 x 24 1/2 in.\$79.95

ARVIN HOME RADIOS
6 TUBE CONSOLE MODEL

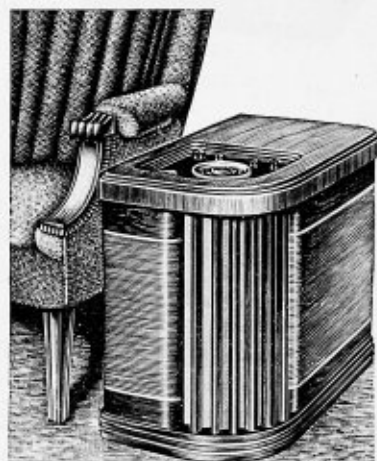


6 type G tubes including electric eye; 8 in. speaker; 4 1/2 in. dial; continuously variable tone control; skip band (standard and short wave); 540 to 1750 KC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles. Each No. 628—37x11 1/4 x 20 in.\$54.95

Battery Set

Same style cabinet as above model. 6 glass tubes; 2 volt battery; 6 in. speaker; 4 1/2 in. dial; continuously variable tone control; two band (standard and police). Requires 90 volt B battery and 2 volt A battery. Each No. 628B—37x11 1/4 x 20 in.\$54.95

6 TUBE END TABLE MODEL



6 type G tubes including electric eye; 8 in. speaker; 4 1/2 in. dial; continuous variable tone control; skip band (standard and short wave); 540 to 1750 MC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles. Each No. 628CB—21 1/4 x 14 1/4 x 25 1/2 in.\$69.95

NOTE—Due to the limited amount of space in this catalog we are unable to show our complete line of Home and Auto Radios. Write us for information and prices on other models.

ARVIN HOME RADIOS

8 TUBE TABLE MODEL



8 type G tubes including electric eye; 8 in. speaker; 6 in. dial; continuously variable tone control; traveling spotlight station finder, three bands (standard, police, short wave); 540 to 1750 KC; 1750 to 5800 KC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles.

No. 818—12 $\frac{1}{2}$ x 11 $\frac{1}{2}$ x 24 in. Each \$64.95

6 TUBE TABLE MODEL



6 type G tubes including electric eye; 8 in. speaker; 4 $\frac{1}{2}$ in. dial; continuously variable tone control; skip band (standard and short wave); 540 to 1750 KC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles.

Each
No. 618A—11 x 9 $\frac{1}{4}$ x 19 in. \$39.95

Battery Set

Same style cabinet as above, 6 glass tubes; 2 volt battery; 6 in. speaker; 4 $\frac{1}{2}$ in. dial, continuously variable tone control; two band (standard and police). Requires 90 volt B battery and 2 volt A battery.

Each
No. 618B—9 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 14 in. \$39.95

6 TUBE TABLE MODEL



6 type G tubes including electric eye; 6 in. speaker; 4 $\frac{1}{2}$ in. dial; continuously variable tone control; skip band (standard and short wave); 540 to 1750 KC; 5.7 to 18.0 MC; 105-125 volt, 60 cycles.

Each
No. 618—9 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 14 in. \$34.95

5 TUBE TABLE MODEL



5 glass tubes, 5 in. speaker; 3 $\frac{1}{2}$ in. dial; 2-point tone control; two band (standard and police); 550 to 1650 KC; 1650 to 4000 KC; 105-125 volt, 60 cycles.

Each
No. 568 — 9 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 12 $\frac{1}{4}$ in. \$26.95

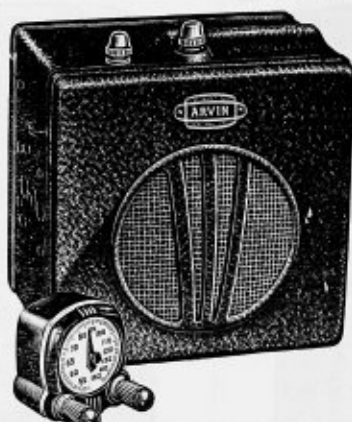


5 glass tubes; 5 in. speaker; 3 $\frac{1}{2}$ in. dial; 2-point tone control; two band (standard and police); 550 to 1650 KC; 1650 to 4000 KC; 105-125 volt, 60 cycles.

Each
No. 518—8 $\frac{1}{2}$ x 7 $\frac{1}{2}$ x 9 $\frac{1}{4}$ in. \$19.95

ARVIN AUTO RADIOS

TAILOR-FIT



Universal for All Cars

A good, dependable 6-tube superheterodyne with dynamic in-the-set speaker and steering column control. An all-in-one, easy-to-install unit universal for all cars. Wide range superheterodyne circuit with automatic volume control using six tubes: 78, 6A7, 78, 75, 41 and 84. Beautiful steering column control with indirectly illuminated airplane type dial face. Harmonizes perfectly with interior of all cars.

Housed in an all-metal copper-plated case, 8 $\frac{1}{2}$ in.

square by 6 $\frac{1}{2}$ in. deep. Case is beautifully finished in Benton gray morocco with attractive chromium trim. Features easy and quick installation with 2-way hug-the-dash mounting on back and side of case. Only one hole to drill to mount radio in any desired position.

Each
No. 18FW—Shipping wt. each 24 lbs. \$39.95
One in a carton.

AUTO RADIO SPEAKERS

ARVIN



Overhead



In-the-Set



Separate Case

Overhead speakers provide splendid, clear hearing throughout the car. A few different models enable you to fit most new cars. An 8 in. inverted type is available for some General Motor cars. A real engineering achievement that provides the deluxe performance of big speaker reception.

Powerful in-the-set tone-matched speaker is a real performer that faithfully reproduces voice and musical broadcasts. Fits perfectly in the front of all Arvin radio chassis and gives an all-in-one easy-to-install unit for all cars.

New full-toned 8 in. separate case speaker for all cars—an Arvin engineering development that gives brilliant tonal range and quality reception of every broadcast. So designed that it hugs the dash and gives front seat passengers plenty of leg room. May be installed with any Arvin radio chassis.

Full Particulars and Prices on Request.

AUTO RADIO CONTROLS

ARVIN



Steering Column



Instrument Panel



Modern streamline airplane type steering column control fits all cars perfectly. May be mounted on either side of steering column. Streamline housing converges all control wires into one cloth-covered cable. The complete unit adds a touch of smartness and is finished to harmonize with the interiors of all cars. Large dial figures are indirectly illuminated.

Matching instrument panel controls have large easy-to-read dial figures—far enough apart so that you can locate and tune stations quickly. They are especially designed and built to fit and match the panel instruments of most new cars.

Full Particulars and Prices on Request.

AUTOMOTIVE SECTION

Limited Space does not permit us to show our complete line of Automotive Accessories and Shop Equipment in this catalog. Consequently, items shown are representative only of our extensive stock. In addition to the items shown we are also Distributors of the Products of the Following Manufacturers:

ARROW SAFETY DEVICES CO.
DIRECTION SIGNALS

**AUTOMOTIVE MAINTENANCE
MACHINERY CO.**
"AMMCO" LINE

AUTOMATIC SAFETY DEVICES CO.
"KING BEE" PRODUCTS

BEAR MANUFACTURING CO.
WHEEL ALIGNING EQUIPMENT

BOLSER CORPORATION
FLARES

BEHR-MANNING CO.
ABRASIVES

BISHOP & BABCOCK CO.
DEFROSTER FANS

CASCO MANUFACTURING CO.
"CASCO" PRODUCTS

CRESCENT TOOL CO.
WRENCHES, PLIERS, ETC.

CONNECTICUT TEL. & ELECT. CORP.
DIRECTION SIGNALS

COTTONTX PRODUCTS CO.
SWEEPING COMPOUND

CRAWFORD MANUFACTURING CO.
SEAT COVERS—SHOP CLOTHING, ETC.

DOLE VALVE MANUFACTURING CO.
THERMOSTATS

JOS. DIXON CRUCIBLE CO.
GRAPHITE PRODUCTS

DELTA ELECTRIC CO.
ELECTRIC LANTERNS, LAMPS, ETC.

DORMAN STAR WASHER CO.
WASHERS, CLEVIS PINS, YOKES, ETC.

EVER-KLEEN SEAT PAD CO.
SEAT PADS, CUSHIONS

FAIRMOUNT TOOL CO.
BODY AND FENDER TOOLS

FULTON CO.
FULTON ACCESSORIES FOR POPULAR CARS

GATES RUBBER CO.

FAN BELTS, CAR MATS, RADIATOR HOSE, ETC.

GEM MANUFACTURING CO.
MUFFLERS

HYGRADE SYLVANIA CORP.
"SYLVANIA" RADIO TUBES

HARLEY SOAP CO.
HARCO "GREAS-OFF" CLEANER

K. D. LAMP CO.
CLEARANCE LIGHTS, TAIL LIGHTS, ETC.

KESTER SOLDER CO.
ACID FILLED, ROSIN FILLED SOLDER
NATIONAL MOTOR BEARING CO.
GREASE RETAINERS

PERSONS-MAJESTIC CO.
REFLECTORS, FOGLIGHTS, ETC.

PROTECTION PRODUCTS MFG. CO.
"RAINY DAY" AND "STORMY WEATHER" DRESSINGS

PERMATEX CO.
"FORM-A-GASKET"

PEP MANUFACTURING CO.
ABRASIVE COMPOUNDS

RICH FOGLITE CO.
"RICHLITE" FOG LIGHTS

SHALER CO.
VULCANIZERS, PATCHES, ETC.

STILES BARRETT CORP.
BRAKE LINING SHOP EQUIPMENT

SODRIN CO.
RADIATOR SOLDER

SHERMAN-KLOVE CO.
"MASTERCRAFT" WRENCHES

STANDARD MOTOR PRODUCTS CO.
IGNITION PARTS

SAMSON-UNITED CO.
DEFROSTER FANS

J. A. TUMBLER LABORATORIES
POLISHES, CHEMICALS

WAGNER ELECTRIC CO.
GENUINE "LOCKHEED" BRAKE FLUID

WATERVLIT TOOL CO.
REAMERS

New items are constantly appearing in the Automotive field, which necessitates changes and additions, but we solicit your inquiries and will be pleased to quote you or mail special lists and literature upon request.

MANSFIELD TIRES AND TUBES

Mansfield offers dealers a complete range of first and second line tires and tubes—a tire for every service.



**MANSFIELD
CUSHION BALLOONS**

Specially designed for high speeds—small diameter wheels low air pressures—knee action and have proved themselves outstanding tires for today's fast cars. Made in 4 and 6 ply construction in the following sizes: 6.00-16, 6.20-16, 6.50-16, 6.50-17 and 7.00-16.



**MANSFIELD
4 PLY BALLOONS**

Made for use in modern traffic—for quick starting and stopping—for riding comforts—for long non-skid life. Made of highest quality materials—have deep grooved, wide contact treads, engineered and built to stand high speeds and small wheels.



**MANSFIELD
6 PLY BALLOONS**

These heavy duty tires are first choice of thousands and thousands of car owners for their sturdiness, dependability, safety and long wear. No better tires are made, regardless of price.



**MANSFIELD
MUDDERS**

Here are the tires that turn Mud and Sand roads into highways, that push their way through Deep Snow, that make it possible for motorists to use their cars all year. They are self clearing both forward and reverse.



**PIONEER
4 & 6 PLY**

Here are tire values that make quick friends with car owners looking for safety and service at low first cost.

Note: The 6.00-16 Pioneer is made with a special streamline tread for service on late model cars.



**TOURIST
BALLOONS**

Tourist balloons are dependable, low priced tires, offering car owners substantial measure of reliable service. Made also in 30x3½ oversize clincher.



**MANSFIELD
TRUCK**

Mansfield Bus-truck balloons and truck cords stand hard knocks and heavy service. They have double beads, double breakers and wide all-traction treads. They are first choice tires with commercial car owners because they cut hauling costs.



**MANSFIELD
HEAVY DUTY TUBES**

It's fit that counts in inner tubes. The Mansfield Heavy Duty is the ace of inner tubes—the peak of tube value. Extra large and extra heavy—cured to tire shape and made for exact fit in tires mounted on either flat base or drop center rim.

THE MANSFIELD GUARANTEE

Mansfield Tires, both passenger car and truck, are covered by the Manufacturers' Standard Warranty, reading as follows: "Every tire of our manufacture bearing our name and serial number is warranted by us against defects in material and workmanship during the life of the tire to the extent that if any tire fails because of such defects, we will either repair the tire or make a reasonable allowance on the purchase of a new tire."

NOTE—Prices Will Be Furnished Upon Request on Entire Line of Tires and Tubes

TIRE CHAINS

WEED AMERICAN



More Than Double the Mileage; More Traction

Weed alloy, a tough, wear-resisting tire chain metal is used in the cross chains.

Bar reinforcements double welded to contact links of cross chains which give twice as much metal to wear through.

Electric welded, non-kinking side chains, stow away compactly when not in use. Lever-lock end hooks—easy to operate and positive locking.

Tire size	Per pair	Tire size	Per pair
29x4.40-21	\$5.60	30x6.00-18	\$9.00
29x4.50-20		29x6.50-17	
30x4.50-21		30x6.50-18	
28x4.75-19	5.60	31x6.00-19	9.50
29x4.75-20	5.70	32x6.00-20	9.75
30x4.75-21	6.20	31x6.50-19	
27x5.00-17	7.30	33x6.00-21	9.90
27x5.25-17		32x6.50-20	9.50
29x5.00-19	7.80	7.00-16	
28x5.25-18		7.50-16	9.75
27x5.50-17	7.90	31x7.00-17	9.90
28x5.50-18		(29x6.75)	
30x5.00-20	8.15	32x7.00-18	10.25
29x5.25-19		(30x6.75)	
29x5.50-19		31x7.50-17	
30x5.25-20	8.40	33x7.00-19	10.60
30x5.50-20		(31x6.75)	
31x5.00-21		34x7.00-20	
31x5.25-21	8.60	(32x6.75)	10.85
28x6.00-16		32x7.50-18	
29x6.00-17		35x7.00-21	
6.25-16	8.60	(33x6.75)	10.85
6.50-16		33x7.50-19	

Bracketed sizes are identical.

WEED AMERICAN CROSS CHAINS

Tire size	Per 100
4, 4.40, 4.50	\$10.00
4½, 4.75	11.50
5, 5.00, 5.25, 5.50	15.00
6.00, 6.25, 6.50	18.00
6.75, 7.00, 7.50	21.00

AMERICAN UNIT CHAINS



Heavy galvanized side plates stand hard wear. Double-locking buckle prevents unit from becoming loose when in use. Weather-proofed web strap.

Cross chains brass plated; side plates grey galvanized.

With Weed Regular Cross Chains

Nos.	Fits tires	Wt. each, lbs.	Each
P-6	4, 4.40, 4.50, 4.75	1	\$0.60
P-7	5, 5.00, 5.25, 5.50	1½	.70
P-8	6.00, 6.25, 6.50	1½	.80
P-9	6.75, 7.00, 7.50	1½	.90

With Weed American Cross Chains

Nos.	Fits tires	Wt. each, lbs.	Each
P-0	4, 4.40, 4.50, 4.75	1	\$0.70
P-1	5, 5.00, 5.25, 5.50	1½	.80
P-2	6.00, 6.25, 6.50	1½	.90
P-3	6.75, 7.00, 7.50	1½	1.00

TIRE CHAINS

WEED REGULAR AND EXTRA HEAVY



Regular—Have been considered the standard since automobiles first came into use. Tough, hardened, brass-plated cross chains; side chains are gray, galvanized to resist rust; quick-operating, positive locking lever-lock end hooks enameled bright red.

Extra Heavy—Same type as Regular but much heavier. For use where mountain grades, country roads, gumbo soils put unusual strains on chains.

Tire size	Weed Regular Per pair	Weed Ex. Heavy Per pair
29x4.40-21	\$4.25	6.00
29x4.50-20		
30x4.50-21		
28x4.75-19	5.00	6.65
29x4.75-20	5.00	6.70
30x4.75-21	5.50	7.20
27x5.00-17	6.00	7.80
27x5.25-17		
29x5.00-19	6.30	8.45
28x5.25-18		
27x5.50-17	6.40	8.50
28x5.50-18		
30x5.00-20	6.60	8.70
29x5.25-19		
29x5.50-19	6.75	8.90
30x5.25-20		
30x5.50-20	7.60	9.25
31x5.00-21		
31x5.25-21	7.60	9.25
28x6.00-16		
29x6.00-17	7.60	9.25
6.25-16		
6.50-16	8.00	9.50
30x6.00-18		
29x6.50-17	8.30	10.00
30x6.50-18		
31x6.00-19	8.60	10.25
32x6.00-20		
31x6.50-19	8.80	10.40
32x6.00-21		
32x6.50-20	8.20	10.40
7.00-15		
7.00-14	8.30	10.50
7.00-16		
7.50-16	8.60	10.80
31x7.00-17		
(29x6.75)	8.70	11.00
32x7.00-18		
(30x6.75)	9.00	11.25
31x7.50-17		
33x7.00-19	9.50	11.85
(31x6.75)		
34x7.00-20	9.50	11.85
(32x6.75)		
32x7.50-18	9.70	11.85
35x7.00-21		
(33x6.75)	9.70	11.85
33x7.50-19		

Bracketed sizes are identical.

CROSS CHAINS

Tire size	Weed Regular Per 100	Weed Ex. Heavy Per 100
4": 4.40; 4.50	\$ 7.75	11.00
4½": 4.75	10.00	13.00
5": 5.00; 5.25; 5.50	12.00	18.50
6.00; 6.25; 6.50	15.50	21.50
6.75; 7.00; 7.50	18.00	27.00

Prices on This Page are Factory List.

TIRE CHAINS

WEED TRUCK AND BUS



Made especially strong and heavy, with steel cross chains carefully heat treated. Connecting hooks are a heavier form of the well known Weed Lever-Lock hook. Electric welded straight link side chains used on all except 5 and 6 inch Regular on which electric welded side chain may be had at a slight additional cost. Require 4-inch clearance between tire and fender with springs fully compressed and 2½ inch clearance sideways.

American—Have the same type bar-reinforced cross chains as the passenger car Weed American Chains.

Regular—Same type as Weed Regular Passenger car chains, but of stronger and heavier construction.

Extra Heavy—Extra heavy throughout for truck and bus service under severe traction conditions.

Single Pneumatic, 4-Link Spacing

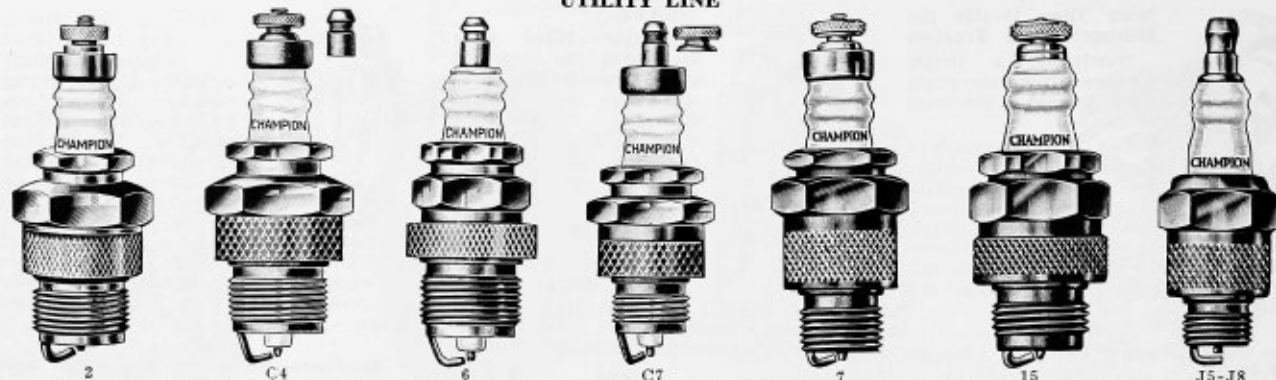
Tire size	American Per pair	Regular Per pair	Extra Heavy Per pair
30x5	\$11.25	9.50	14.00
30x5.50-20			
32x6.00-20			
30x6.50-18	13.30	10.75	15.75
32x6.50-20	14.20	11.30	17.50
32x6			
36x6	15.50	13.10	19.00
31x7.50-17	16.70	14.25	19.00
32x7.00-18	17.90	15.40	19.75
34x7.00-20	18.50	16.10	22.00
32x7.50-18			
34x7.50-20	19.15	16.75	22.50
34x7			
38x7.50-24	21.00	18.50	26.00
38x7			
34x8.25-18	22.20	17.25	22.75
36x8.25-20	23.25	18.50	24.00
38x8.25-22	24.40	18.75	25.75
36x8			
40x8.25-24	25.60	19.80	27.50
40x8	27.00	21.00	30.00
36x9.75-18	26.80	20.00	27.20
38x9.00-20			
40x9.00-22	28.30	21.25	29.00
38x9.75-20			
38x9	28.30	22.95	30.00
42x9.00-24			
40x9.75-22	28.80	22.95	30.50
42x9.75-24			
42x9	30.50	24.50	31.25
42x9			
40x10.50-20	30.75	24.75	30.25
40x10	32.90	27.20	31.50
42x10.50-22			
44x10.50-24	34.75	28.50	32.75
44x10	35.25	29.65	34.00
42x11.25-20	32.90	27.20	31.50
46x11.25-24	35.25	29.65	34.00
44x12.00-20	38.40	33.25	37.00
48x12.00-24	41.25	37.00	40.00
44x12.75-20	40.75	35.00	38.00
48x12.75-24	43.50	38.00	40.00
46x13.50-20	45.60	37.00	40.00
50x13.50-24	48.00	40.00	40.00

Note—All above chains may be had in 2-link spacing at an additional charge.

CHAMPION SPARK PLUGS

Sillimanite Insulator, Sillment Cement, Extra Range Shaped Core, Special Alloy Electrodes, Patented Gap

UTILITY LINE



The above eight types, comprising the utility line, offer an accurate selection covering practically all passenger car spark plug requirements and are the fastest selling numbers.

REGULAR LINE

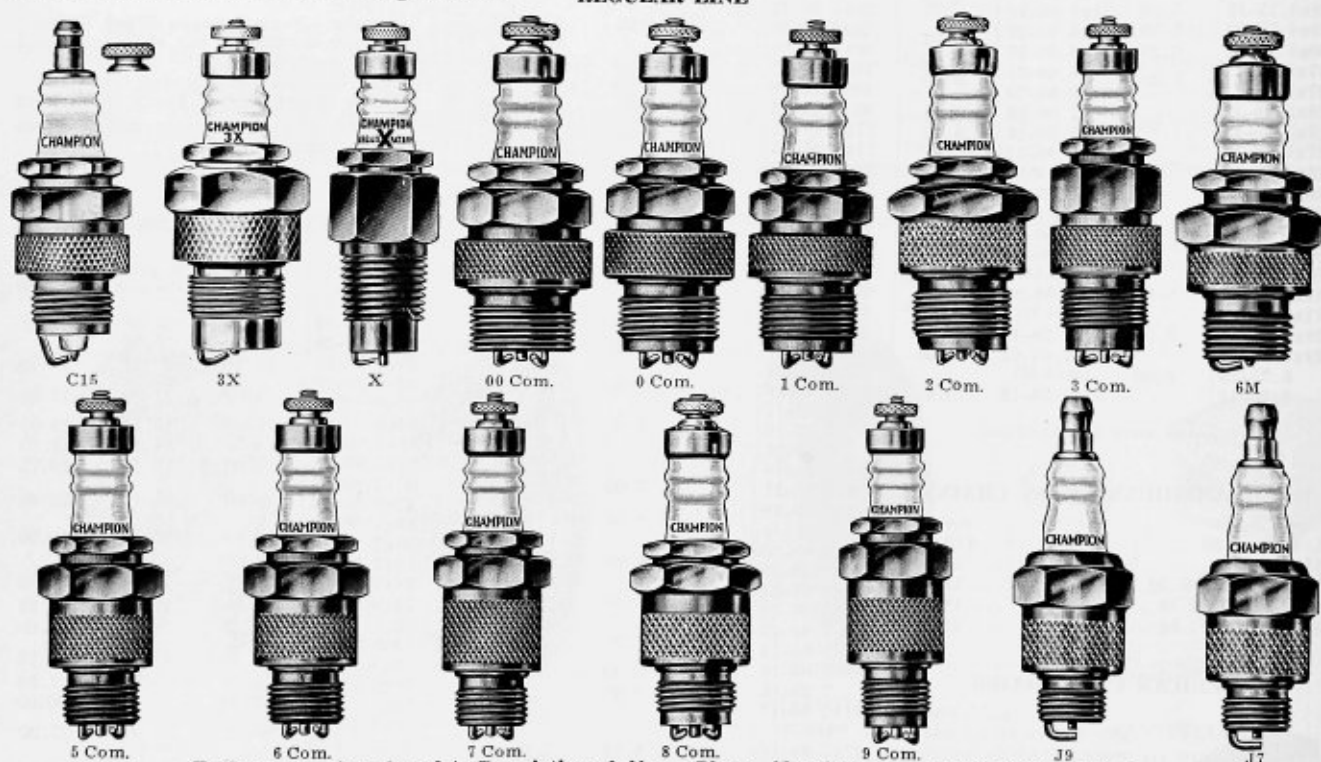


Table Below Gives Complete Description of Above Plugs—Also Specifies Plugs Not Illustrated

Thread Size	Hex. Size, in.	Normal Service			Severe Service Busses, Cabs, Tractors, Trucks and Pass. Cars	Racing Auto, Marine, Motor Cycle	Radio Auto, Marine, Lt. & Pow. Plant	Gas Engines
		Extra Range Plugs		Aver. Range				
$\frac{7}{8}$ "	$1\frac{1}{8}$ "	C4, C4X	2	3X	2 Com. former Tr. Sp.		C4 Radio	36 Ex. Lg., 43
$\frac{7}{8}$ "	$1\frac{1}{8}$"	...	.....	22	3-1-0-00 (Com.)	.....	.....	44, 45
$\frac{7}{8}$ "	$\frac{7}{8}$ "	6	.....	.....	.....	.....	.....	.....
18 mm.	1	C7	6M, 7, 8, J1-15	....	5M, 5 Com., 6 Com., 7 Com., 8 Com., 9 Com.	13, B-2, B-3, R1, R2, R3, R7, R11	7 Radio	42
18 mm.	$\frac{7}{8}$ "	C15	15	....	.....	.....	.....	.....
14 mm.	$1\frac{1}{8}$ "	...	J5, J6, J7, J8, J9, H-10	....	J10 Com.	JA-11 JA-12	J8 Radio	.....
$\frac{1}{2}$ "	$1\frac{1}{8}$"	...	.....	X Long	.....	.....	.....	30 Std., 31 Long, 33 Lg., 34 Ex. L.
$\frac{1}{2}$ "	$1\frac{1}{8}$"	...	.....	.....	.....	.....	.....	.....
$\frac{3}{4}$ "	$1\frac{1}{8}$"	...	.....	.....	.....	.....	.....	38 Long

PRICES

All Regular Type Plugs.....Each \$0.65
 Radio PlugsEach .90
 R and JA Racing Type Plugs.....Each .90
 B-2 and B-3 Motorcycle Plugs.....Each .65

*Cores

Regular CoresEach \$0.30
 Cores for Radio Plugs.....Each .50
 *Note—In ordering Cores, specify Plug Type No. wanted for.

STORAGE BATTERIES

GLOBE



Every step in the manufacture of Globe batteries conforms to the highest standards of precision workmanship. All raw materials are carefully selected and pass a series of exacting laboratory tests before they are approved for use.

There is a Globe battery of the correct size and type for every purpose—yet, the line is simplified and flexible. Every piece of automotive equipment on the road can be serviced from a minimum battery stock.

Group	Battery No.	Price each	Service units	Cost per service unit	Type	300			Plates per cell	Plate separation	Container material	Handle	Overall dimensions			Shipping wt. ea. lbs.	
						20 hr. rate in amps.	20 min. rate in amps.	0° F. in minutes					Lgth. in.	Width. in.	Ht. in.		
1	45	\$ 5.75	9	\$0.64	Globe	75	90	1.7	13	W	E	NH	9 1/8	7	8 1/8	37	
	55	7.20	12	.60	Globe	80	100	2.2	13	W	E	NH	9 1/8	7	8 1/8	38	
	65	9.75	18	.54	Globe	91	116	3.0	15	W	R	NH	9 1/8	7 1/8	8 1/8	40	
	68	9.35	18	.52	Globe	88	111	2.8	13	W	E	NH	9 1/8	7	8 1/8	44	
	72	10.75	21	.51	Paragon	88	111	2.8	13	S	R	NH	9 1/8	7	8 1/8	42	
	74	13.75	24	.57	Paragon	102	130	3.8	15	S	R	NH	9 1/8	7	9 1/8	42	
	118	12.95	24	.54	Paragon	118	148	4.8	17	W	R	NH	9 1/8	7	8 1/8	46	
	*56	7.20	12	.60	Globe	80	100	2.2	13	W	E	NH	9 1/8	7	8 1/8	38	
	1A	*66	9.75	18	.54	Globe	91	116	3.0	15	W	R	NH	9 1/8	7 1/8	8 1/8	40
	*59	7.45	12	.62	Globe	86	105	2.3	15	W	E	NH	10 1/8	7 1/8	8	42	
1B	*64	8.85	21	.42	Globe	98	120	3.4	17	W	E	NH	10 1/8	7 1/8	8	44	
	*110F	11.95	24	.50	Paragon	110	135	4.4	19	W	R	NH	10 1/8	7 1/8	8	47	
	75	9.65	12	.80	Globe	91	116	3.0	15	W	E	NH	10 1/8	7	8 1/8	43	
	78	12.45	18	.69	Globe	104	132	3.8	17	W	R	ST	10 1/8	7	8 1/8	44	
	80	15.45	21	.74	Paragon	102	130	3.8	15	S	R	NH	10 1/8	7	8 1/8	44	
	81	17.95	24	.75	Paragon	117	148	4.8	17	S	R	NH	10 1/8	7	9 1/8	48	
	132	16.95	24	.71	Paragon	132	166	5.8	19	W	R	NH	10 1/8	7	8 1/8	52	
	2A	*79	13.45	21	.64	Globe	110	135	4.3	19	W	E	NH	11 1/8	7 1/8	8	49
	82	15.45	18	.86	Globe	121	151	4.5	19	W	R	ST	11 1/8	7	8 1/8	51	
	3	84	22.95	24	.96	Paragon	140	167	6.0	19	S	R	NH	11 1/8	7	9 1/8	55
4	89	17.85	18	.99	Globe	135	167	5.5	21	W	R	ST	13	7	8 1/8	57	
	90	25.75	24	1.07	Paragon	155	185	7.0	21	S	R	ST	13	7	9 1/8	60	
5	94	22.95	21	1.09	Paragon	162	201	7.5	25	W	R	NH	14 1/2	7 1/8	8 1/8	68	
6	95	24.95	21	1.19	Paragon	170	203	8.0	23	W	R	ST	13 1/2	7	9 1/8	64	
7	98	22.95	21	1.09	Paragon	162	201	7.5	25	W	R	L	20 1/8	5 1/8	8 1/8	64	
8	62	8.85	18	.49	Globe	58	70	...	9	W	R	L	7	6 1/8	8 1/8	35	
9	*99	12.95	18	.72	Globe	44	53	...	7	W	E	ST	12 3/8	7	8 1/8	51	

* These batteries have reverse assembly. † 12 volt battery—all others 6 volt.

† Plate separation: "W"—Wood, "S"—Spintex—the new long life separation.

‡ Container: Material, "R"—Hard Rubber; "E"—Ebrok. Handle: "NH"—No handle. "L"—Ledge; "ST"—Stub.

§ One service unit in passenger car service is equivalent to one month or 1,000 miles whichever occurs first. One service unit in commercial service is equivalent to 1/2 month or 1,000 miles whichever occurs first.

BATTERY PLIERS

PACKARD



Angle nose; hardened and tempered, of special steel.

Each

No. 141—7 in. long; wt. per dozen 5 lbs.\$1.40

BATTERY CHARGING CLIPS

UNIVERSAL



Steel, Cadmium Plated

A very small test clip for radio, ignition, meter and similar work.

Per 100

No. 45 Pee-Wee—1 1/2 in. long, 1/2 in. jaw spread; wt. per 100, 1 1/2 lbs.\$5.00

Ten in a box, 100 in a carton.

BATTERY CHARGING CLIPS

UNIVERSAL

Steel, Cadmium Plated



A small test and battery clip for radio use and general testing purposes.

Per 100

No. 48B—2 in. long, 3/8 in. jaw spread; wt. per 100, 2 lbs.\$5.00

Steel, Lead Plated

A medium sized battery clip. Stands erect on battery post. Lead coated, copper shunt protects spring.

Per 100

No. 24A—2 3/4 in. long, 1 in. jaw spread; wt. per 100, 5 lbs.\$10.00

Steel, Lead Plated

A large heavy duty battery charging clip. Lead coated copper shunt protects spring.

Per 100

No. 21A—4 in. long, 1 1/4 in. jaw spread; wt. per 100, 15 lbs.\$16.00

Ten in a box, 100 in a carton.

PACKARD AUTOMOTIVE CABLE

Packard automotive cables have been prominently identified with the automobile industry since its beginning; is used by a large majority of car manufacturers as original equipment; for replacement it holds an unquestioned and enviable position for leadership. Put up on 100-foot spools in self-dispensing shelf cartons which exhibit a sample of the cable outside. There is a standard style and size of Packard cable for every automotive use.

HIGH TENSION CABLE

Used in wiring from magneto or distributor to spark plugs; also coil to distributor.



Packard Lac-kard Ignition

Constructed of rubber and braid with multiple coats of special pyroxylin lacquer—provides best protection against attacks of corona abrasion, moisture, oil, age and heat. Should be used in all cases where quality and highest degree of satisfaction are desired. Per 100 ft.

No. 324—7 m/m, chrome, one braid;	wt. per 100 ft. 4.5 lbs.	\$ 9.00
No. 341—9 m/m, brown, two braids;	wt. per 100 ft. 7.6 lbs.	14.00
No. 344—7 m/m, brown, one braid;	wt. per 100 ft. 4.5 lbs.	9.00
No. 347B—7 m/m, black, two braids and tape;	wt. per 100 ft. 5.2 lbs.	12.00



Packard Plain Ignition

No. 42—7 m/m, rubber covered;	wt. per 100 ft. 5.4 lbs.	\$5.00
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Packard Four-Forty

A revolutionary development with an outside sheath of non-organic material that withstands the effects of corona, heat and oil to a far greater degree than is possible with any other suitable insulating material.

Tests demonstrate that FOUR-FORTY will remain in good condition long after lacquered cables have completely failed.

Especially recommended for bus and truck service; also on passenger cars where the ignition cables operate under unusually severe conditions. Per 100 ft.

No. 440—7 m/m; wt. per 100 ft. 5 lbs.	\$11.00
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LOW TENSION CABLE



Packard, Braided

Is used in wiring the primary or low tension circuit of the ignition system. This circuit connects the source of electrical energy (battery or low tension magneto) with the coils through the timing device and switch. This cable is similar to No. 14 gauge lighting cable except that it has a heavier insulation. Per 100 ft.

No. 346—5 m/m, two braid, lacquered, wt. 100 ft. 2.7 lbs.	\$5.00
---	--------

LIGHTING CABLE

Lighting Cable is used in wiring from switch to the head, tail, side, dash and dome lights. The selection of the proper gauge size depends upon the required current carrying capacity of the circuit. No. 16 gauge size is satisfactory for small dash and tail lights. The No. 14 gauge size is satisfactory for most headlights but No. 12 is sometimes needed where large bulbs are used. No. 10 gauge is used for generator circuit, although No. 12 can be used on the smaller cars.



Packard, Single Conductor

Made with a wall of rubber compound and one braid; lacquered.

Nos. 50	52	54
Gauge Nos. 16	14	12
Wt. 100 ft., lbs. 1.7	2.5	3.9
Per 100 feet \$3.00	3.00	4.50
Nos. 56	60	
Gauge Nos. 10	8	
Wt. per 100 ft., lbs. 5	8	
Per 100 feet \$6.00	10.00	



Packard, Two-Conductor; Flat

Generally used in two-wire systems. Insulated with a wall of rubber, one braid over each conductor and one braid over all, protected by multiple coats of lacquer.

Nos. 51	53
Gauge Nos. 16	14
Wt. per 100 ft., lbs. 4	5.6
Per 100 feet \$6.00	8.00

Packard Super-Duty Fleet

Similar to the regular lighting cable with the exception of the outer covering. Instead of a cotton braid and lacquer covering, Super-Duty is finished with a strong "Seine-Twine" braid which is given a special treatment with a black asphaltum weatherproofing compound. This provides an oil and waterproofed covering and increases the wearing qualities to a very great degree. This type of cable has met with ready acceptance in the fleet field.



Single Conductor

Nos. 66	68	80
Gauge Nos. 16	14	12
Wt. per 100 ft., lbs. 2.2	3.1	4
Per 100 feet \$3.00	4.00	5.00



Two Conductor; Flat

Nos. 67	69	81
Gauge Nos. 16	14	12
Wt. per 100 ft., lbs. 4.9	6.5	8
Per 100 feet \$7.00	8.00	12.00

LIGHTING CABLE



Packard, Armored, Single Conductor

Packard armored single conductor lighting cable is used in single wire systems.

Nos. 71	75	79
Gauge Nos. 16	14	12
Wt. per 100 ft., lbs. 2.9	3.8	5.1
Per 100 feet \$4.00	5.00	7.00



Packard, Flat Armored, Two-Conductor

Packard armored two conductor lighting cable is generally used in two-wire systems.

Nos. 173	177
Gauge Nos. 16	14
Wt. per 100 ft., lbs. 5.5	7.8
Per 100 feet \$9.00	10.00

Packard, Flexible
Black braid.

Nos. 113	
Gauge Nos. 18	
Wt. per 100 ft., lbs. 2.8	
Per 100 feet \$4.00	

FLEX-O-CORD

A Heavy Duty Portable

For service lamps, electric drills, motors, etc.; ideal for garage and shop service where cable is bound to get rough usage.



Packard; Two-Conductor

Nos. 169	171
Gauge No. 18	16
Wt. per 100 ft., lbs. 8.9	10
Per 100 feet \$10.00	11.00

Packard; Three-Conductor

No. 175—16 gauge; wt. per 100 ft., 10.2 lbs.	\$15.00
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Packard; Four-Conductor

No. 179—16 gauge; wt. per 100 ft., 11 lbs.	\$16.00
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PACKARD WALL CHART

A wall chart showing the proper cable to use on various jobs and under different conditions will be furnished upon request.

WHEEL and BRAKE DEPARTMENT

4900 Block—Liberty Avenue

— SCHenley 7200

Genuine
Factory Equipment
WHEELS — RIMS
DRUMS — PARTS

GUNITE
BRAKE DRUMS
for all Trucks

LATHAN-BESLER
Vacuum
POWER BRAKES
for cars, trucks, trailers

GRIZZLY
Brake Block
Linings
a Bear for Wear!

BRAKE SHOP
and ALIGNMENT
EQUIPMENT

HOUSE TRAILER
Axles, Wheels, Brakes

SERVICE

Alignment — Axles

Brakes — Wheels

Carburetors —
Stromberg
Carter

Ignition

Fuel Pumps

Brake Shoe
Exchange

Motor Tune-up

WHEELS!

No matter what wheel or wheel part you need, it is available at the right price in our large warehouse stock. There are — ready for shipment — wheels, brake drums, rims and parts for practically all makes of cars, cabs, trucks, trailers, and house trailers.

Due to the great number of items and the continual addition of new numbers, we cannot give here detailed information, but have available SPECIAL CATALOGS ON

Automobile Wheels, Drums, Parts, Firestone
and Goodyear Truck Rims, Budd and Motor
Wheel Dual Wheels, Grizzly Brake Block
Linings, Lathan-Besler Power Brakes.

ASK FOR the catalog which covers your requirements, or let us analyze your problem and quote you!

HAVE YOU a special wheel or tire problem?—do you need rims for a farm implement, or industrial tractor?—axles or brakes for your cabin trailer?—safer brakes for your trucks?—more efficiency from your motors?

PHONE SC 7200

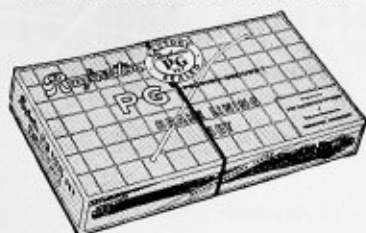
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Block — Lathan-Besler Vacuum Brakes

RAYBESTOS BRAKE LINING AND EQUIPMENT

PG (PROVING GROUND) SETS



The ultimate in modern brake lining. Seven different types of molded and woven lining used singly and in combinations depending upon the requirements of the particular brake systems as determined by vast proving ground and laboratory tests. Only 35 sets are necessary to cover the majority of car models. A combination installation adjustment and merchandising tag is packed with each set.

The 35 PG sets cover all popular models of passenger car brakes. This has been made possible by grouping models using the same width and thickness of brake lining; and by making allowance, in some cases, for cutting a fraction of an inch of lining to fit the various brake shoes. In addition to these 35 sets there are a few additional PG sets for the less popular cars.

SELECTIVE SETS

An improved series of brake lining sets for Ford, Chevrolet and Plymouth cars featuring combinations of woven and molded lining, the latter introducing the new knurled surface for quick seating and long wear.

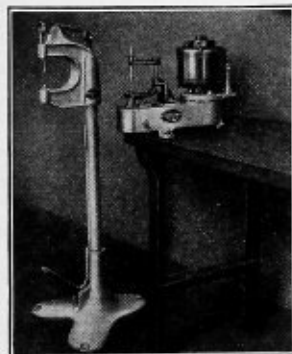
Each set is drilled and countersunk and contains sufficient material for four wheels except that Chevrolet 1½ ton truck sets have material for two wheels only. An instruction sheet is packed with each set to aid in correct lining installation and brake adjustment.

RAYBESTOS BRAKE LINING

Complete Information and Prices

Sent on Request.

PG RELINER COMBINATION



Countersinking Unit

V-belt drive and liberal-sized pulleys deliver full power to a spindle mounted in bronze bearings with grooved oil ways for proper lubrication.

Built-in motor switch and generous length of armored cord. Simple adjustments for belt slack and for regulating countersink depth.

Each

No. 800—¼ H.P. 110 volt, 60 cycle, G.E. motor; two countersinks\$33.00

Riveter

Sufficient reserve leverage so that passenger car and light truck rivets can be set with ease. Modern tapered shank riveter tools.

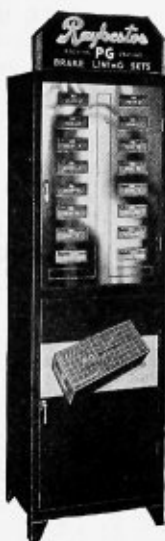
Each

No. 63—With five riveting tools.....\$22.00

Combination

No. 800-63—Consists of a No. 800 Countersinking unit and a No. 63 Riveter; wt. each 163 lbs.\$39.50

SENIOR MERCHANDISER



With this new cabinet, PG sets are safely and attractively displayed out in the shop where car owners can see them and where the mechanic can conveniently select the set he needs for the job.

Made of heavy furniture steel, attractively finished in blue crackle with three color sign and real chromium door. This cabinet keeps sets free from dust and stock safely stored under lock and key. Upper compartment for PG sets, lower section for Imperial sets and roll lining.

Each

No. 20—A popular 18 set deal with cabinet and advertising helps; wt. each 105 lbs.\$93.20

No. 10—A popular 8 set deal with a small junior cabinet, signs and merchandising helps; wt. each 47 lbs.34.90

RAYBESTOS BRAKE LINING IN ROLLS

Silver Edge "05" Woven (65 List)

Long fibre asbestos yarn part of which contains fine alloy wire interwoven into a dense long wearing lining which is kind to the drums.

Molded in Rolls (65 List)

A semi-flexible molded lining with an asbestos fibre base. A patented binding compound contains plastic metal in atomized form which avoids scoring while giving long wear and positive performance.

Rayco Woven (45 List)

An asbestos lining of reinforced yarn properly treated and cured provides a built-in quality which makes it an excellent value at the price.

Rayco Molded (50 List)

Manufactured like silver edge molded in rolls but with slightly less asbestos content to allow lower price. A safe lining.

Hycoc Hydraulic Compressed (60 List)

Woven asbestos cloth impregnated with a special rubber compound is folded and hydraulically compressed as well vulcanized into a long wearing lining of high friction value. Recommended on external brakes and lighter pieces of industrial equipment.

F. W. Heavy Duty (75 List)

A woven asbestos and brass wire lining of super density making it an ideal fabric for heavy duty service. Surface grinding promotes quick over all contact resulting in full efficiency almost immediately after installation.

BRAKE RELINING EQUIPMENT

No. 865 Combination

Countersinking, riveting and shoe grinding operations concentrated on a single pedestal.

Each

No. 865—¼ H.P., G.E. motor, 110 volt, 60 cycle, single phase, with cord, plug, and built-in switch; 10 extra tools; wt. each 200 lbs.\$79.50

Raybestos Air Liner Combination

Combination consists of a No. 810 Pneumatic Riveter and No. 805 High Speed Countersink unit.

No. 810 Riveter Unit

Each

No. 810—Actuated by compressed air, provides speed and power far beyond that heretofore available in brake service. Operates on air pressure 80-100 lbs. utilizing 1/20 cubic ft. per stroke; wt. each 175 lbs.\$65.00

No. 805 Countersink Unit

Each

No. 805—Designed to operate the new Carboly countersinks in the proper manner. Equipped with ¼ H.P. G.E. standard motor and two Carboly countersinks; wt. each 61 lbs.\$45.00

Combination

Each

No. 810-805—Consists of a No. 810 Riveter unit and No. 805 Countersink unit; wt. each 236 lbs.\$100.00

GRIZZLY BRAKE BLOCK LINING

FULL MOLDED

Grizzly is the latest and most efficient type of lining available today. For present types of brakes, traffic conditions and driving requirements it is as nearly perfect as any lining can be made. The ultimate result of more than twenty years of specialized development and experience in brake lining manufacture.



In Rolls

List prices per foot

Schedule No. 80—Sizes up to 2½ x ¼

Schedule No. 70—Sizes over 2½ x ¼

Combination List 80-70

Thickness

Width	5/16	7/16	1/4	5/8	3/4	1/2	5/8	3/4	7/8	1
1	\$0.42	.48†	.76	.80	1.00	1.35	1.65	1.95	2.30	2.65
1½	.50*	.56†	.84	1.00	1.20	1.60	1.95	2.40	2.80	3.15
1¾	.56*	.64*	.96	1.10	1.40	1.85	2.30	2.80	3.30	3.70
2	.68†	.72*	1.04†	1.30	1.60	2.15	2.65	3.20	3.70	4.25
2½	.76	.80*	1.08*	1.40	1.75	2.30	2.95	3.50	4.10	4.70
2¾	.96	.96*	1.28*	1.65	2.05	2.65	3.30	3.95	4.60	5.25
3	1.08	1.08*	1.44*	1.80	2.20	2.95	3.65	4.40	5.10	5.80
3½	1.12	1.19	1.58	2.05	2.45	3.20	4.05	4.85	5.65	6.45
3¾	1.25	1.25	1.60†	2.10†	2.50†	3.50	4.40	5.25	6.15	7.00
4	1.35	1.45	1.85	2.30	2.85	3.80	4.75	5.75	6.65	7.60
4½	1.45	1.55	1.85†	2.45†	3.05	4.10	5.10	6.15	7.15	8.15
4¾	1.55	1.70	2.15	2.75	3.20	4.40	5.50	6.60	7.65	8.75
5	1.65	1.80	2.15	2.80†	3.30†	4.70	5.85	7.00	8.15	9.35
5½	1.75	1.90	2.50	3.15	3.70	5.00	6.25	7.45	8.70	9.95
5¾	1.85	2.00	2.65	3.30	3.90	5.30	6.60	7.90	9.20	10.55
6	1.95	2.10	2.80	3.50†	4.15†	5.55	6.95	8.35	9.70	11.15
6½	2.05	2.20	2.85†	3.50	4.15	5.85	7.30	8.75	10.20	11.70
6¾	2.15	2.35	3.15	3.85	4.60	6.15	7.65	9.20	10.75	12.30
7	2.30	2.45	3.20	4.00	4.85	6.45	8.00	9.65	11.25	12.85
7½	2.40	2.60	3.35	4.20	5.05	6.70	8.40	10.10	11.75	13.45
8	2.50	2.65	3.35	4.20	5.05	7.00	8.75	10.50	12.25	14.00

* This sign indicates fastest moving sizes. † This sign indicates next fastest moving sizes.

Note—For thicknesses less than ½ use ½ list prices. For intermediate thicknesses or widths use the list price for the next larger size.

SETS FOR POPULAR CARS

Each set unless otherwise indicated will completely service a car. Easy to install on brake shoes as each segment is correctly curved to fit the arc of the shoe. Each set in a box.

Ford

	Per set
No. 310A—"A" 1928-32 oversize; 8 pieces...	\$3.25
No. 310B—"A" 1928-32 Standard; 8 pieces...	3.25
No. 515—"B" 1932-33; 40-1934; VS 1932-34; 8 pieces...	4.00
No. 555—"AA" Truck 1928-31 (rear); "BB" 1932-34 (front or rear); 4 pieces...	5.30
No. 642—"VS" 1935-36 passenger and ½ ton commercial; 8 pieces...	4.50
*No. 647—"VS-51" 1935-36 1½ ton truck (front or rear); 4 pieces...	5.20

Chevrolet

	Per set
*No. 315F—"AB" 4-1928; AC-1929 passenger and truck front, LP, LQ, 1½ ton 1928-30 trucks (front); 4 pieces...	\$1.60
No. 548—1930-32 "B" passenger; 8 pieces...	3.00
*No. 562—1930-32, 1½ ton trucks LS; LT; N; Utility (rear); 4 pieces...	3.60
No. 520—1933 CC standard six passenger; 8 pieces...	3.00
No. 614—Eagle Master passenger; 8 pieces...	3.50
No. 633—DC standard 6 passenger; 8 pieces...	3.50
No. 627—1934-35 Master 6; 8 pieces...	4.70
No. 643—1935 Standard 6 passenger; 8 pieces...	4.00
*No. 614—1935-36, 1½ ton truck (front); 4 pieces...	3.50
*No. 645—1935, 1½ ton truck (rear); 4 pieces...	5.70
No. 653—1936 Standard 6, Master 6, ½ ton commercial; 8 pieces...	4.50
*No. 654—1936, 1½ ton truck (rear); 4 pieces...	7.50

SETS FOR POPULAR CARS

Plymouth

	Per set
No. 104—1929-32 Plymouth; 1928-32 De Soto; 1930 Dodge DD6; 1931 DHS; 8 pieces...	\$3.30
*No. 104B—1933 De Soto SD; 8 pieces...	3.30
No. 179—1933 Plymouth PD; PC before car No. 1817101; 8 pieces...	3.20
No. 187—1933 Plymouth PC after car No. 1817101; 8 pieces...	3.00
*No. 192—1934 De Soto SE; 8 pieces...	3.80
No. 195—1934 Plymouth PE; Dodge DR-DS; 8 pieces...	3.50
No. 145—1935-36 Plymouth PJ, PJX, PL, De Luxe P2; Dodge "6" DU; D2; De Soto SF; S1; De Luxe; 8 pieces...	4.20

Hudson—Essex—Willis Knight

	Per set
No. 266—1932-33 Essex Terraplane "6"; 1933-36 Willis Knight 77, 77A; 8 pieces...	\$4.40
No. 276—1933 Essex K. T. Terraplane "8"; 8 pieces...	6.20
No. 282—1934K Terraplane Std. 6, chaulenger; Terraplane Spl. G, De Luxe GU; 8 pieces...	4.70
No. 283—1934 Hudson Std. Series; KU Terraplane 6; Hudson 6GH; Spl. HT, De Luxe HU; 8 pieces...	6.20

Master Sets

Each set services a special group of cars. With these sets in addition to the popular car sets, 90 per cent of the passenger cars can be serviced.

Nos.	Per set	Pcs.	Nos.	Per set	Pcs.
A	\$5.50	8	K	\$10.00	8
B	7.20	8	L	6.40	8
C	8.15	8	M	6.55	8
D	5.30	8	N	10.70	8
E	4.55	8	O	8.65	4
F	5.95	12	P	5.45	8
G	5.75	8	Q	9.90	8
H	6.95	8	R	9.10	8
I	3.95	6	S-½ Set	8.10	4
J	8.40	8			

BLOCK SEGMENTS FOR DISC BRAKES

Manufactured under tremendously high pressure. Each set in a box.

Nos.	Per set	Pcs.	Nos.	Per set	Pcs.
556MS	\$4.60	4	559MS	\$5.00	4
557MS	6.00	4	560MS	4.00	4

GRIZZLY DISPLAY CABINETS

Complete Cabinet and Sets

Strong metal construction, orange and black colors; 3-color glass panels; with electric flasher bulb for night display. Each unit installed with sets either plain or drilled as selected. For Ford, Chevrolet, Plymouth, etc.

Cabinet contains two each of the following sets. Ford — 310-515, Chevrolet — 313-520-548-614-627.

Plymouth 104-104-B-187-179.



All Plain	Each \$129.50
One Drilled, One Plain	130.75
All Drilled	132.50

GRIZZLY "80" ALL SERVICE UNIT

Complete Cabinet and Rolls

Strong metal throughout, orange and black color. Contains one roll of each of the most popular sizes of Grizzly, Full-Molded Brake Block Lining.

One 25 ft. roll of each of the following sizes: 1½ x 5, 1½ x 7, 1½ x 11, 2 x 7.

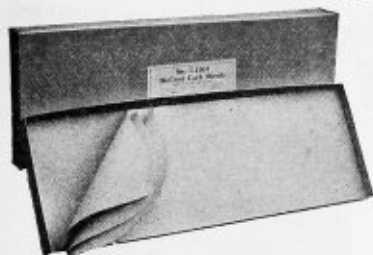


No. 80—Cabinet and 100 ft. of lining...\$85.00

Note—Sets marked * furnished plain only, sets marked † furnished drilled only.

SHEET CORK

McCord



A quality product made of pure cork and a special binder. It is immune to the effects of oil and water.

Packed 10 sheets to a carton.

Nos.	Per 100 sheets	Size sheets, in.
C1001	\$40.00	36x12x $\frac{1}{8}$
C1003	60.00	36x12x $\frac{3}{8}$
C1005	80.00	36x12x $\frac{1}{2}$
C1006	160.00	36x12x $\frac{3}{4}$
C1007	53.00	36x16x $\frac{1}{8}$
C1008	80.00	36x16x $\frac{3}{8}$
C1009	106.00	36x16x $\frac{1}{2}$

SHEET PACKING

VELLUMOID



The duty of the replacement gasket is to make tight connections which stay tight.

Vellumoid is made especially for this work.

Just the right amount of compressibility to take care of the irregularities in the flanges. Made to stand rough treatment without injury; gaskets cut from Vellumoid, do not tear or break. Does not deteriorate either in stock or service. Gaskets are easily cut out with a knife, or can be tapped out with a lead or brass

hammer. No shellac required. A time and trouble saver.

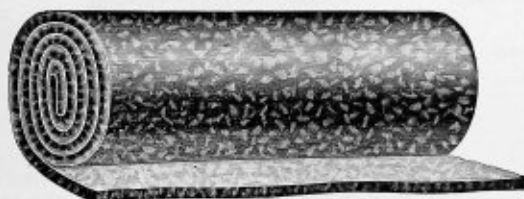
36 Inches Wide

Nos.	3	5	6
Thickness, in.	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$
Wt. per sq. yd., lbs.	$\frac{3}{4}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$
Per square yard	\$0.75	1.50	3.00

Nos. 3 and 5, 25 yards, No. 6, 15 yards in a roll.

SHEET FELT

COLOSSUS



White, Hard Wool Felt

36x36 Inch Sheets.

Nos.	121- $\frac{1}{4}$	121- $\frac{3}{4}$	121- $\frac{1}{2}$
Thickness, in.	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Wt. per sq. yd., lbs.	5 $\frac{1}{2}$	8 $\frac{1}{4}$	11
Per pound	\$3.50	3.50	3.50

Brown, Soft All Wool Felt

36x36 Inch Sheets.

Nos.	335- $\frac{1}{4}$	335- $\frac{3}{8}$	335- $\frac{1}{2}$
Thickness, in.	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Wt. per sq. yd., lbs.	2 $\frac{1}{4}$	3 $\frac{3}{8}$	4 $\frac{1}{2}$
Per pound	\$1.50	1.50	1.50

FLEXIBLE METAL TUBING

ATLANTIC



For Exhaust Heaters and Carburetors

A flexible galvanized steel hose, interlocked construction. Is extremely pliable; can be bent in any position. Adopted as standard equipment by leading motor car, truck, tractor, carburetor and heater manufacturers.

Mill Run Lengths

I.D., in.	Per 100 ft.	O.D., in.	I.D., in.	Per 100 ft.	O.D., in.
$\frac{1}{8}$	\$21.80	1	1 $\frac{1}{8}$	\$43.00	2
$\frac{1}{4}$	22.50	1 $\frac{1}{4}$	1 $\frac{3}{8}$	44.00	2 $\frac{1}{8}$
$\frac{3}{8}$	23.00	1 $\frac{3}{8}$	1 $\frac{1}{2}$	45.00	2 $\frac{3}{8}$
$\frac{1}{2}$	24.25	1 $\frac{1}{2}$	2	45.50	2 $\frac{1}{2}$
1	25.00	1 $\frac{3}{4}$	2 $\frac{1}{8}$	47.25	2 $\frac{3}{4}$
1 $\frac{1}{8}$	26.00	1 $\frac{7}{8}$	2 $\frac{1}{4}$	49.00	2 $\frac{7}{8}$
1 $\frac{1}{4}$	27.00	1 $\frac{5}{8}$	2 $\frac{3}{8}$	51.00	2 $\frac{3}{4}$
1 $\frac{3}{8}$	28.50	1 $\frac{1}{2}$	2 $\frac{1}{2}$	53.00	2 $\frac{1}{2}$
1 $\frac{1}{2}$	29.75	1 $\frac{1}{2}$	2 $\frac{3}{4}$	55.00	2 $\frac{1}{2}$
1 $\frac{3}{4}$	31.25	1 $\frac{3}{4}$	2 $\frac{1}{2}$	61.00	2 $\frac{1}{2}$
1 $\frac{1}{2}$	32.00	1 $\frac{3}{4}$	2 $\frac{3}{4}$	63.00	2 $\frac{3}{4}$
1 $\frac{1}{4}$	34.50	1 $\frac{1}{2}$	2 $\frac{1}{2}$	65.00	2 $\frac{1}{2}$
1 $\frac{1}{2}$	35.80	1 $\frac{1}{2}$	2 $\frac{1}{2}$	67.00	2 $\frac{1}{2}$
1 $\frac{1}{2}$	37.00	1 $\frac{1}{2}$	2 $\frac{1}{2}$	70.00	2 $\frac{1}{2}$
1 $\frac{1}{2}$	38.00	1 $\frac{1}{2}$	2 $\frac{1}{2}$	73.00	3
1 $\frac{1}{2}$	39.25	1 $\frac{1}{2}$	2 $\frac{1}{2}$	76.00	3 $\frac{1}{8}$
1 $\frac{1}{2}$	41.00	1 $\frac{1}{2}$	2 $\frac{1}{2}$		

Note—Prices for sizes not shown quoted upon request.

HOSE CLAMPS

IDEAL

Stays Round—Will Not Kink

For many years Ideal has been recognized as the standard equipment hose clamp of the automotive, truck and airplane industry.

Made of heavy galvanized steel with smooth round edges and furnished with a cadmium plated bolt and nut. Six notches for adjustment.



Clamp Size, in.	Per 100	For 3-Ply Hose I.D., in.	Fits Hose O.D., in.
1 $\frac{1}{8}$	\$6.00	$\frac{3}{4}$	1 $\frac{1}{8}$
1 $\frac{1}{4}$	6.00	$\frac{7}{8}$	1 $\frac{1}{4}$
1 $\frac{3}{8}$	6.00	1	1 $\frac{1}{4}$ to 1 $\frac{1}{2}$
1 $\frac{1}{2}$	6.00	1 $\frac{1}{4}$	1 $\frac{1}{2}$ to 1 $\frac{3}{4}$
1 $\frac{3}{4}$	6.00	1 $\frac{1}{2}$	1 $\frac{3}{4}$ to 1 $\frac{1}{2}$
2 $\frac{1}{8}$	6.00	1 $\frac{3}{4}$	1 $\frac{1}{2}$ to 2 $\frac{1}{8}$
2 $\frac{1}{4}$	6.00	2	2 $\frac{1}{8}$ to 2 $\frac{1}{4}$
2 $\frac{3}{8}$	6.00	2 $\frac{1}{4}$	2 $\frac{1}{4}$ to 2 $\frac{3}{8}$
2 $\frac{1}{2}$	6.00	2 $\frac{3}{8}$	2 $\frac{3}{8}$ to 2 $\frac{1}{2}$

Average weight per 100, 8 pounds.

100 in a carton.

IDEAL ASSORTMENTS



Per assortment
No. 50—Contains 50 clamps as follows: 13 each 1 $\frac{1}{8}$, 1 $\frac{1}{4}$, 2 $\frac{1}{8}$ in. and 11—2 $\frac{1}{4}$ in.; wt. per assortment 5 lbs. \$3.00
No. 100—Contains 100 clamps as follows: 20 each 1 $\frac{1}{8}$, 1 $\frac{1}{4}$, 2 $\frac{1}{8}$, 2 $\frac{1}{4}$ in. and 10 each 1 $\frac{3}{8}$, 2 $\frac{3}{8}$; wt. per assortment 10 lbs. 6.00
One assortment in a display box.

AUTOMOBILE HEATERS

ARVIN HOT WATER

Large radiator cores insure greatly increased heating capacity. Full turn circular deflector directs heat anywhere. Efficient motor and new design fan provide quiet and complete circulation of heat in car. Motor and mounting brackets set heater closer to dash with less overhang and patent 4-point suspension holds heater rigid on dash and requires only two holes for mounting. Copper water lines from radiator core carry no supporting strain. Efficiency of performance is assured. Illuminated variable speed switch.

De Luxe Model

Unquestionably the finest Arvin ever built. It's the heater that appeals to all who demand and buy the very best of everything.

Tremendous heating capacity is combined with every refinement of style and construction in this largest and superbly beautiful Arvin. A mammoth radiator core and high efficiency motor and fan provide abundant heat for all cars from the smallest to the most spacious.

Triple plated chrome full-turn deflector front with ebony red tipped knobs and new taupe-finished body. De luxe illuminated variable-speed control for instrument panel. Fits and heats all cars.

No. 80E—Over all size of heater body: 10 in. wide, 10 in. high, 4½ in. deep; wt. each 18 lbs. . . . \$19.95
One in a box, four in a case.

Master Model

Triple - plated chrome full-turn deflector assembly with ebony red-tipped knobs add an extra touch of refinement and harmonize beautifully with the new taupe-finished heater body. Huge radiator core and efficient motor and fan unit produce luxurious high-temperature performance. Illuminated variable speed control switch of de luxe beauty for the instrument panel. Fits and heats all cars comfortably.

No. 70E—Over all size of heater body: 9 in. wide, 9 in. high, 4½ in. deep; wt. each 17 lbs. . . . \$15.95

No. 70E-G—Same as No. 70E but specially designed to fit all General Motors cars to 1936 incl. . . 15.95

No. 70E-CH—Same as No. 70E, but specially designed to fit all Chrysler built cars to 1936 incl. 15.95
One in a box, four in a case.

AUTOMOBILE HEATERS

ARVIN HOT WATER

Duo-Flow



A tailor-fit model with two inlet and two outlet connections. Not merely "Y" connections but separate water lines to each of the two upper and two lower radiator hoses. This enables the large double thick radiator core and high-speed motor fan unit to pick up and force more heat into the car interior. Has striking new taupe-finished heater body with blue-white chrome full-turn deflector front. Equipped with illuminated variable-speed switch; exact hose length, two shut-off valves, complete fittings and detailed installation instructions.

No. 68F—Made especially for all Ford V-8 cars; over all size of heater body 8½ in. wide, 8½ in. high, 4½ in. deep; wt. each 16 lbs. . . . \$13.95

One in a box, four in a case.



Standard Model

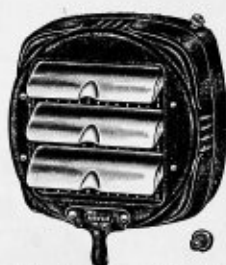
By far the finest heater Arvin has ever offered at so modest a cost.

Illuminated variable - speed control switch to beautify any instrument panel. Large double-thick radiator provides high-temperature performance in big volume. Same striking beauty of taupe and chromium as more expensive models. Compact, high efficiency motor and fan. Full-turn deflector. Fits any car. Recommended for small sedans and coupes.

No. 66E—Over all size of heater body: 8½ in. wide, 8½ in. high, 4½ in. deep; wt. each 16 lbs. . . \$12.95

No. 66E-G—Same as No. 66E, but specially designed to fit all General Motors cars to 1936 incl. . . 12.95

No. 66E-CH—Same as No. 66E but specially designed to fit all Chrysler built cars to 1936 incl. 12.95
One in a box, four in a case.



Special Model

A genuine Arvin at such a sensationally low price that enables any car owner to enjoy the high temperature performance of this splendid model.

Large double-thick radiator core; heavy duty, high speed motor and fan. Attractive taupe finish and chromium full-turn deflector blades. Multi-speed switch. Recommended for small sedans and coupes.

No. 56E—Over all size of heater body: 8½ in. wide, 8½ in. high, 4½ in. deep; wt. each 15 lbs. . . \$9.95

One in a box, four in a case.

DEFROSTING FANS

CASCO

For removing frost from the windshield in winter and for a cool breeze in the car in the summer.

Attaches to steering post, header board or any other desired available location. Has handy switch on motor. Small but efficient proven dependable motor, with self-aligning oil-less bearings and selected high grade brushes. Ball and socket friction joint allows fan to be set at any desired position. Complete with 4 ft. of rubber parallel cord with spade terminals.



De Luxe Model

Guard with swirl type louvers, distributes air over a wide area. Guard and motor, beautiful brown metallic lacquer; blades brightly polished.

No. 35—6 volt motor; wt. each 2½ lbs. . . . \$3.75

Standard Model

Electrically welded heavy wire guard of conventional style. Guard and blades, nickel finish; motor, brown metallic lacquer finish.



No. 36—6 volt motor; wt. each 2½ lbs. . . . \$3.50

TRICO VACUUM TYPE

Universal

Designed to remove steam and frost from the windshield and when used in connection with the car heater will likewise remove sleet.

Only one moving part

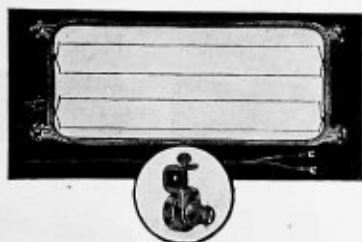
is utilized in the Trico fan, the turbine, shaft and propeller being a single unit. The air turbine employed turns the propeller up to 4500 R.P.M.'s producing an ample supply of air for all purposes. All the air is directed against the windshield, there being practically no dead space in the center of the air column. Size 3½ x 3½ in.

No. VF-1-C—Chromium finish . . . \$5.00
No. VF-1—Enamel finish . . . 3.75

Weight each ½ pound.
All above, one in a box.



SLEET-FROST SHIELDS CASCO ELECTRIC

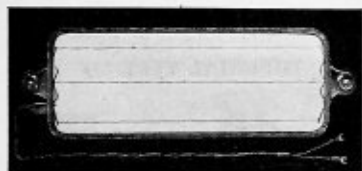


Improved defroster model with chrome frame has four heating wires to insure ample heat for coldest days, and an embossed frame to give strength and neat appearance. The four positive-grip suction cups with adjusting thumb nuts hold the live rubber flange seal tightly against windshield. Narrow metal frame does not impair driving vision. Heat is evenly distributed over area to be cleared.

Each

No. 196—16 $\frac{1}{2}$ x7 $\frac{1}{2}$ in. glass, 4 suction cups, illuminated switch, 4 heating wires; wt. each 3 lbs.\$5.00

One in a box.



An efficient, neatly designed well-made defroster that will keep windshield clear of ice, sleet or snow. Brown metallic finish, rigid metal frame. Has live rubber seal and three heating wires which supply ample heat, yet are scarcely visible. Cord and plug assembly furnished.

Each

No. 41E—15 $\frac{1}{2}$ x6 $\frac{1}{2}$ in. glass, 2 large suction cups; 3 heating wires; wt. each 2 $\frac{1}{4}$ lbs.\$3.00

One in a box.



A remarkable efficient low-priced defroster. The two heating wires and live rubber seal assures removal of ice and sleet. Two large suction cups hold securely. Brown metallic finish rigid metal frame. Cord and plug assembly furnished.

Each

No. 23—13x5 $\frac{1}{2}$ in. glass, 2 large suction cups, 2 heating wires; wt. each 1 $\frac{1}{4}$ lbs.\$1.75

One in a box.

ANTI-FREEZE SOLUTIONS EVEREADY PRESTONE



The Perfect Anti-Freeze

A concentrated chemical compound which possesses all the properties which the National Bureau of Standards has declared essential for a safe anti-freeze.

It contains no alcohol or glycerine. It contains nothing that can damage a cooling system. In fact Eveready Prestone protects the cooling system from the corrosive action of water and prevents the formation of rust. It is entirely distinctive, absolutely safe and should not be confused with any other anti-freeze.

Size cans, gal.	$\frac{1}{2}$	1
Cans in case	12	6
Wt. case, lbs.	72	70
Per gal.	\$3.00	2.95

DU PONT ZERONE



The new and improved anti-rust anti-freeze gives complete two-way radiator protection and maximum anti-freeze economy.

It not only protects cars more completely than ever against freezing, but also protects the cooling system against rust and corrosion. It has no offensive or unpleasant odor and does not evaporate readily.

Size cans, gal.	$\frac{1}{4}$	1
Cans in case	24	6
Wt. case, lbs.	50 $\frac{1}{2}$	49 $\frac{1}{2}$
Per gallon	\$1.00	1.00

DU PONT FIVE STAR



A new chemical compound of surpassing merit.

It is a clear transparent and ruby-red liquid that dissolves completely in water in all proportions. With water it forms an ideal heat transfer medium for use in all water-cooled gasoline motors.

It is non-toxic, has a clean, non-offensive odor, is safe and harmless in all respects to motors, radiators, pumps and connections. Provides protection against the corrosion of all metallic parts in the cooling system.

Size cans, gal.	$\frac{1}{4}$	1
Cans in case	24	6
Wt. case, lbs.	50	50
Per gallon	\$1.00	1.00

ANTI-FREEZE SOLUTIONS DU PONT DENATURED ALCOHOL



An anti-freeze of proved merit and outstanding value. It is known and accepted by the motoring public as a quality product.

It contains nothing but high grade alcohol, denaturants of the best quality prescribed by the U. S. Government and a minute quantity of a remarkably efficient rust inhibitor that does not in any way

affect its general usefulness. Its fine quality is apparent from its natural crystal-clear color.

Size cans, gals.	$\frac{1}{4}$	1
Cans in case	24	6
Wt. case, lbs.	50	50
Per gallon	Prices on Request	

RADIATOR SOLUTION TESTERS FRIGID-O-METER



For Alcohol, Glycerine, Zerone and Prestone

Designed to service late model cars. Equipped with a 14 in. hose that extends at right angle under the hood of modern cars and instrument rests on radiator. Thermometer corrects for temperature. Four metal correction tables give proper correction for particular anti-freeze being tested. Flexible float bends but does not break.

Each

No. 54—19 $\frac{1}{4}$ in. long; wt. each 1 $\frac{1}{2}$ lbs.\$4.50

One in a carton.

ZERO TESTER



For Alcohol, Glycerine and Prestone

This instrument of the well known double barrel type, combines in a single handy unit, a hydrometer that will test three solutions, together with a thermometer that takes the temperature of the solution being tested and a correction table which shows at a glance the actual freezing point of that solution. The various scales are printed in color for easy reading. Patented flexible float. Red rubber bulb.

Each

No. 16—Wt. each 1 $\frac{1}{4}$ lbs.\$3.40

One in a carton.

FREEZE-TESTERS



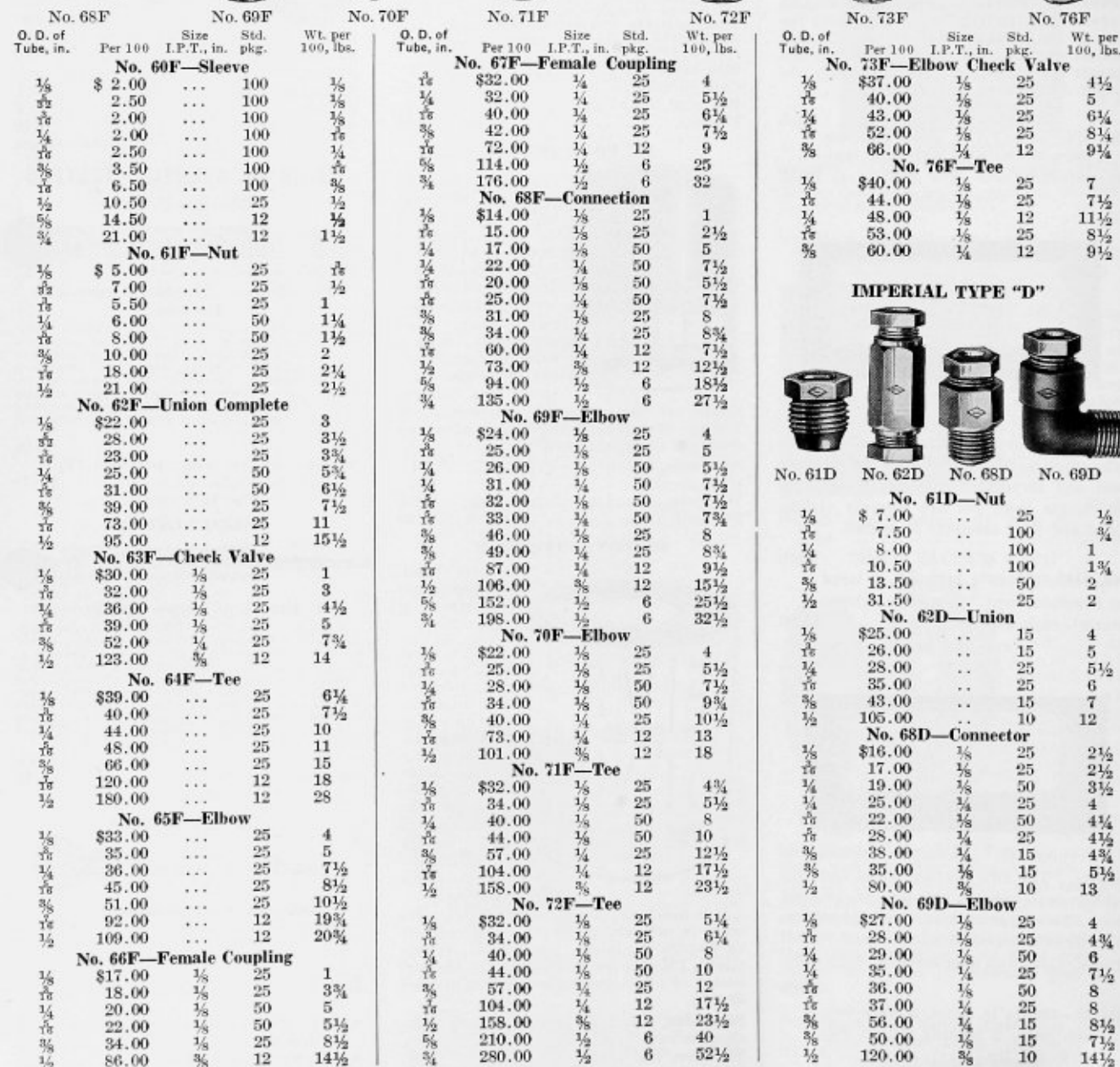
These serviceable instruments are equipped with plainly calibrated floats and crackproof, red rubber bulbs. Patented, octagon tips are molded of semi-flexible rubber, are 8 $\frac{1}{2}$ in. long. Length over all 17 in.

Each

No. 11—For Prestone, Alcohol or Glycerine\$1.00
No. 7—For Alcohol Only 1.00
No. 6—For Menthol Only 1.00

IMPERIAL SOLDERLESS

For Connecting Brass, Copper, Aluminum, Shelby or Bundy Tubing



Note—All prices on this page include nuts and sleeves for all fittings.

S.A.E. TUBE COUPLINGS
IMPERIAL SOLDERLESS
For Connecting Brass or Copper Tubing



No. 41F



No. 41FS



No. 42F



No. 43F



No. 44F



No. 45F



No. 46F



No. 47F



No. 48F



No. 49F



No. 50F



No. 51F



No. 55F



No. 53F

O. D. of Tube, in. Per 100 Size I.P.T., in. Std. pkg. Wt. per 100, lbs.

No. 41F—Union Nut, Standard Length				
$\frac{1}{8}$	\$11.00	25	1 $\frac{3}{4}$	
$\frac{1}{4}$	13.00	50	3 $\frac{1}{4}$	
$\frac{3}{8}$	17.00	50	5	
$\frac{1}{2}$	25.00	25	8	
$\frac{3}{4}$	34.00	12	10	
$\frac{7}{8}$	46.00	12	11 $\frac{1}{2}$	
$\frac{1}{2}$	74.00	6	20	
$\frac{3}{4}$	101.00	6	34 $\frac{1}{2}$	

No. 41FS—Union Nut, Short Length

$\frac{1}{8}$	\$10.00	25	1 $\frac{3}{4}$	
$\frac{1}{4}$	12.00	50	3 $\frac{1}{4}$	
$\frac{3}{8}$	15.00	50	5	
$\frac{1}{2}$	22.00	25	8	
$\frac{3}{4}$	33.00	12	10	
$\frac{7}{8}$	40.00	12	11 $\frac{1}{2}$	
$\frac{1}{2}$	64.00	6	20	
$\frac{3}{4}$	95.00	6	34 $\frac{1}{2}$	

No. 42F—Union Coupling

$\frac{1}{8}$	\$18.00	25	2 $\frac{3}{4}$	
$\frac{1}{4}$	19.00	25	3 $\frac{1}{2}$	
$\frac{3}{8}$	23.00	25	5	
$\frac{1}{2}$	35.00	25	9	
$\frac{3}{4}$	45.00	12	12	
$\frac{7}{8}$	55.00	12	14	
$\frac{1}{2}$	92.00	6	28	
$\frac{3}{4}$	130.00	6	40	

No. 43F—Ball Check Valve

$\frac{1}{8}$	\$30.00	25	2	
$\frac{1}{4}$	31.00	25	3	
$\frac{3}{8}$	35.00	25	4 $\frac{1}{2}$	
$\frac{1}{2}$	48.00	25	8	
$\frac{3}{4}$	57.00	12	10	
$\frac{7}{8}$	68.00	12	14	

No. 44F—Tee

$\frac{1}{8}$	\$26.00	25	5	
$\frac{1}{4}$	28.00	25	6	
$\frac{3}{8}$	35.00	25	8	
$\frac{1}{2}$	55.00	25	18	
$\frac{3}{4}$	79.00	12	22 $\frac{1}{2}$	
$\frac{7}{8}$	92.00	12	21	
$\frac{1}{2}$	235.00	6	40	
$\frac{3}{4}$	272.00	6	55	

No. 45F—Tee

$\frac{1}{8}$	\$25.00	25	6	
$\frac{1}{4}$	27.00	25	7	
$\frac{3}{8}$	33.00	25	8 $\frac{1}{2}$	
$\frac{1}{2}$	52.00	25	11	
$\frac{3}{4}$	75.00	12	17 $\frac{1}{2}$	
$\frac{7}{8}$	88.00	12	19	
$\frac{1}{2}$	226.00	6	38	
$\frac{3}{4}$	255.00	6	53	

No. 46F—Female Coupling

$\frac{1}{8}$	\$16.00	25	3 $\frac{1}{2}$	
$\frac{1}{4}$	17.00	25	4	
$\frac{3}{8}$	20.00	25	4 $\frac{1}{2}$	
$\frac{1}{2}$	32.00	25	9	
$\frac{3}{4}$	43.00	12	10	
$\frac{7}{8}$	52.00	12	12	
$\frac{1}{2}$	112.00	6	25	
$\frac{3}{4}$	165.00	6	36	

No. 47F—Female Coupling

$\frac{1}{8}$	\$24.00	25	4 $\frac{1}{2}$	
$\frac{1}{4}$	26.00	25	5	
$\frac{3}{8}$	51.00	25	10	
$\frac{1}{2}$	55.00	12	12	
$\frac{3}{4}$	73.00	12	16	

No. 48F—Half Union

$\frac{1}{8}$	\$12.00	25	2 $\frac{3}{4}$	
$\frac{1}{4}$	13.00	50	3	
$\frac{3}{8}$	22.00	25	5	
$\frac{1}{2}$	17.00	50	4	
$\frac{3}{4}$	24.00	25	6	
$\frac{7}{8}$	35.00	25	7 $\frac{1}{4}$	
$\frac{1}{2}$	42.00	25	8	
$\frac{3}{4}$	32.00	25	6 $\frac{3}{4}$	
$\frac{7}{8}$	38.00	12	8 $\frac{3}{4}$	
$\frac{1}{2}$	45.00	12	11 $\frac{1}{2}$	
$\frac{3}{4}$	90.00	6	25	
$\frac{7}{8}$	100.00	6	36 $\frac{1}{2}$	

INVERTED FLARE COUPLINGS

IMPERIAL



No. 41W



No. 48W



No. 49W



No. 94W

O. D. of Tube, in. Per 100 Size I.P.T., in. Std. pkg. Wt. per 100, lbs.

No. 41W—Nut				
$\frac{1}{8}$	\$ 8.25	....	1	
$\frac{1}{4}$	10.30	....	1 $\frac{1}{2}$	
$\frac{3}{8}$	12.38	....	2	
$\frac{1}{2}$	18.70	....	4	

No. 48W—Connector

$\frac{1}{8}$	\$ 9.68	$\frac{1}{8}$	....	1 $\frac{1}{2}$	
$\frac{1}{4}$	11.50	$\frac{1}{4}$	....	2	
$\frac{3}{8}$	12.92	$\frac{3}{8}$	....	2 $\frac{1}{4}$	
$\frac{1}{2}$	20.24	$\frac{1}{2}$	....	4 $\frac{1}{2}$	

O. D. of Tube, in. Per 100 Size I.P.T., in. Std. pkg. Wt. per 100, lbs.

No. 49W—Elbow				
$\frac{1}{8}$	\$17.60	....	4	
$\frac{1}{4}$	18.02	....	4 $\frac{1}{2}$	
$\frac{3}{8}$	21.17	....	5	
$\frac{1}{2}$	34.25	....	13 $\frac{1}{2}$	

No. 94W—45° Elbow

$\frac{1}{8}$	\$35.00	$\frac{1}{8}$	....	4	
$\frac{1}{4}$	36.00	$\frac{1}{4}$	....	4	
$\frac{3}{8}$	38.00	$\frac{3}{8}$	....	4	
$\frac{1}{2}$	48.00	$\frac{1}{2}$	....	8 $\frac{1}{4}$	

HI-DUTY TUBE COUPLINGS

IMPERIAL SOLDERLESS

The ideal coupling for use on copper, brass, aluminum and other tubing. Scientifically designed to protect against vibration breakage. No flaring or soldering necessary. A two-piece coupling. Easy to install.



No. 81L



No. 82L



No. 83L



No. 84L



No. 85L



No. 86L



No. 88L



No. 89L



No. 90L



No. 91L



No. 92L



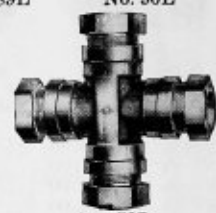
No. 94L



No. 95L



No. 96L



No. 92L

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 81L—Nut				
1/8	\$ 7.70	..	25	3/4
1/8	8.25	..	25	1
1/4	10.30	..	50	1 1/2
1/4	12.40	..	50	2 1/2
3/8	18.70	..	25	3 1/4
1/2	27.25	..	12	4
1/2	33.45	..	12	4 1/2
5/8	100.00	..	..	5
3/4	120.00	..	..	6 1/4

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 82L—Union				
1/8	\$35.50	..	15	4
1/8	36.00	..	15	5 1/2
1/4	43.45	..	25	6 1/2
1/4	53.10	..	25	8
3/8	69.50	..	15	10 1/2
1/2	79.35	..	10	12 1/2
1/2	110.95	..	10	19 1/2
5/8	364.00	..	..	45
3/4	456.00	..	..	65

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 83L—Check Valve				
1/8	\$34.10	1/8	15	5
1/8	35.20	1/8	15	6
1/4	38.50	1/8	15	6 1/4
1/4	44.00	1/8	15	6 1/4
3/8	57.20	1/4	15	14
1/2	77.00	1/4	10	12 1/2
1/2	132.00	3/8	10	14

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 84L—Tee				
1/8	\$51.15	..	15	8
1/8	52.50	..	15	10
1/4	59.15	..	15	10
1/4	74.95	..	15	14
3/8	104.50	..	15	17
1/2	136.40	..	5	25
1/2	176.00	..	5	39
5/8	570.00	..	..	75
3/4	730.00	..	..	90

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 85L—Elbow				
1/8	\$41.80	..	15	6
1/8	42.90	..	15	7
1/4	45.05	..	15	11
1/4	51.50	..	15	10
3/8	72.05	..	15	18
1/2	99.55	..	10	28
1/2	121.00	..	10	30
5/8	350.00	..	..	46
3/4	436.00	..	..	64

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 86L—Female Coupling				
1/8	\$30.60	1/8	15	5 1/2
1/8	31.00	1/8	15	8
1/4	33.00	1/8	15	7 1/4
1/4	39.80	1/8	15	7
3/8	49.90	1/4	15	8
1/2	71.70	1/4	10	10 1/2
1/2	105.40	3/8	10	15
5/8	232.00	1/2	..	34
3/4	300.00	3/4	..	51

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 88L—Connector				
1/8	\$15.40	1/8	25	5
1/8	17.95	1/8	25	6
1/4	20.55	1/8	50	6
1/4	25.30	1/4	25	6 1/4
1/4	25.30	1/8	50	6 1/4
3/8	31.70	1/4	25	5 1/2
3/8	38.95	1/4	15	7
1/2	52.50	3/8	15	8
1/2	61.60	1/4	10	8
1/2	81.40	3/8	10	11 1/2
5/8	230.00	1/2	..	30
3/4	290.00	3/4	..	45

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 89L—Elbow				
1/8	\$24.20	1/8	25	4 1/2
1/8	25.85	1/8	25	4 1/2
1/4	28.35	1/8	50	7
1/4	33.55	1/4	25	10
1/4	33.55	1/8	50	7 1/4
3/8	37.95	1/4	25	7
1/2	52.95	1/4	15	14
1/2	61.95	3/8	15	14
1/2	69.30	1/4	10	19
1/2	94.15	3/8	10	23 1/2
5/8	236.00	1/2	..	38
3/4	300.00	3/4	..	53

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 90L—Elbow				
1/8	\$27.50	1/8	15	9
1/8	29.70	1/8	15	10
1/4	32.45	1/8	15	10
1/4	40.70	1/8	15	14
3/8	59.85	1/4	15	25
1/2	99.85	1/4	5	25
1/2	126.50	3/8	5	37
1/2	270.00	1/2	..	52
3/4	336.00	3/4	..	87

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 91L—Tee				
1/8	\$38.50	1/8	15	6 1/4
1/8	40.70	1/8	15	8 1/2
1/4	45.30	1/8	25	11 1/4
1/4	61.05	1/8	25	10
3/8	88.00	1/4	15	14
1/2	121.00	1/4	5	22 1/2
1/2	165.00	3/8	5	33 1/4
5/8	480.00	1/2	..	56
3/4	610.00	3/4	..	75

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 92L—Tee				
1/8	\$38.50	1/8	15	6 1/4
1/8	40.70	1/8	15	8 1/2
1/4	45.30	1/8	25	9 1/2
1/4	61.05	1/8	25	10 1/2
3/8	88.00	1/4	15	14 1/2
1/2	121.00	1/4	5	20
1/2	165.00	3/8	5	40
5/8	480.00	1/2	..	61
3/4	610.00	3/4	..	82

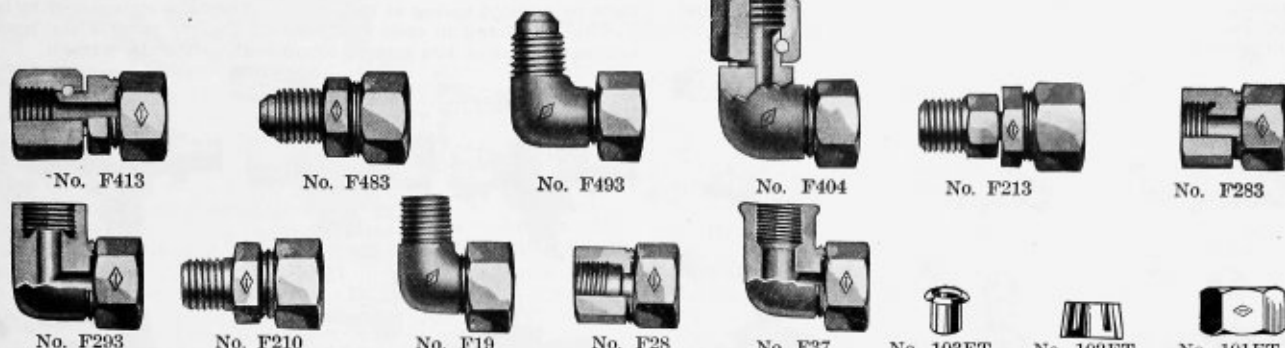
O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 94L—45° Elbow				
1/8	\$28.05	1/8	15	8
1/8	28.35	1/8	15	7
1/4	30.80	1/8	15	6 1/4
1/4	43.20	1/8	15	6 1/2
3/8	55.00	1/4	15	10
1/2	71.50	1/4	5	13
1/2	150.00	3/8	5	21
5/8	242.00	1/2	..	38
3/4	300.00	3/4	..	53

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 95L—Tee				
1/8	\$44.00	1/8	15	9 1/2
1/8	45.65	1/8	15	10
1/4	50.05	1/8	15	11 1/4
1/4	66.00	1/8	15	14
3/8	92.40	1/4	15	20
1/2	126.50	1/4	5	25
1/2	170.50	3/8	5	38
5/8	480.00	1/2	..	50
3/4	610.00	3/4	..	84

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 96L—Tee				
1/8	\$44.00	1/8	15	9
1/8	45.65	1/8	15	10
1/4	50.05	1/8	15	10
1/4	66.00	1/8	15	14
3/8	92.40	1/4	15	25
1/2	126.50	1/4	5	25
1/2	170.50	3/8	5	37
5/8	480.00	1/2	..	52
3/4	610.00	3/4	..	87

O. D. of Tube, in.	Per 100	Size I.P.T., in.	Std. pkg.	Wt. per 100, lbs.
No. 92L—Cross				
1/8	\$240.00	..	..	18
1/8	244.00	..	..	19
1/4	248.00	..	..	20
1/4	256.00	..	..	25
3/8	276.00	..	..	38
1/2	430.00	..	..	..
1/2	500.00	..	..	..
5/8	696.00	..	..	..
3/4	880.00	..	..	..

FLEXIBLE TUBE COUPLINGS
IMPERIAL SOLDERLESS



Nos.	Per 100	O. D. of tube, in.	Used with hose, No.	Wt. per 100, lbs.
S.A.E. Nut to Hose				
F-413	\$28.50	$\frac{1}{8}$	13-FT	11
F-414	32.00	$\frac{1}{4}$	13-FT	10
F-414-5	36.25	$\frac{1}{4}$	14-FT	13
F-415-4	32.00	$\frac{1}{8}$	13-FT	10
F-415	36.25	$\frac{1}{8}$	14-FT	14
F-415-6	55.00	$\frac{1}{8}$	15-FT	17
F-416-5	36.25	$\frac{3}{8}$	14-FT	14
F-416	55.00	$\frac{3}{8}$	15-FT	18
F-418	85.00	$\frac{1}{2}$	16-FT	25

S.A.E. Connector to Hose				
F-483	\$27.50	$\frac{1}{8}$	13-FT	6
F-484	29.00	$\frac{1}{4}$	13-FT	8
F-484-5	30.00	$\frac{1}{4}$	14-FT	10
F-485-4	29.00	$\frac{1}{8}$	13-FT	9
F-485	30.00	$\frac{1}{8}$	14-FT	10
F-485-6	50.00	$\frac{1}{8}$	15-FT	14
F-486-5	30.00	$\frac{3}{8}$	14-FT	12
F-486	50.00	$\frac{3}{8}$	15-FT	16
F-488	80.00	$\frac{1}{2}$	16-FT	22

S.A.E. Elbow to Hose				
F-493	\$ 30.00	$\frac{1}{8}$	13-FT	9
F-494	32.50	$\frac{1}{4}$	13-FT	11
F-494-5	35.00	$\frac{1}{4}$	14-FT	13
F-495-4	32.50	$\frac{1}{8}$	13-FT	14
F-495	35.00	$\frac{1}{8}$	14-FT	16
F-495-6	75.00	$\frac{1}{8}$	15-FT	24
F-496	75.00	$\frac{3}{8}$	15-FT	25
F-498	115.00	$\frac{1}{2}$	16-FT	39

S.A.E. Nut Elbow to Hose				
F-404	\$45.00	$\frac{1}{4}$	13-FT	15
F-404-5	55.00	$\frac{1}{4}$	14-FT	24
F-405-4	45.00	$\frac{1}{8}$	13-FT	15
F-405	55.00	$\frac{1}{8}$	14-FT	22
F-405-6	95.00	$\frac{1}{8}$	15-FT	19
F-406-5	55.00	$\frac{3}{8}$	14-FT	24
F-406	95.00	$\frac{3}{8}$	15-FT	31

Inverted Nut to Hose				
F-213	\$28.50	$\frac{1}{8}$	13-FT	8
F-214	28.50	$\frac{1}{4}$	13-FT	8
F-214-5	34.00	$\frac{1}{4}$	14-FT	11
F-215-4	28.50	$\frac{1}{8}$	13-FT	10
F-215	34.00	$\frac{1}{8}$	14-FT	11
F-215-6	45.00	$\frac{1}{8}$	15-FT	13
F-216-5	34.00	$\frac{3}{8}$	14-FT	15
F-216	45.00	$\frac{3}{8}$	15-FT	17
F-218	80.00	$\frac{1}{2}$	16-FT	25

Inverted Connector to Hose				
F-283	\$32.50	$\frac{1}{8}$	13-FT	7
F-284	32.50	$\frac{1}{4}$	13-FT	6
F-284-5	35.00	$\frac{1}{4}$	14-FT	10
F-285-4	32.50	$\frac{1}{8}$	13-FT	7
F-285	35.00	$\frac{1}{8}$	14-FT	10
F-285-6	50.00	$\frac{1}{8}$	15-FT	14
F-286-5	35.00	$\frac{3}{8}$	14-FT	9
F-286	50.00	$\frac{3}{8}$	15-FT	16

Inverted Elbow to Hose				
F-293	\$ 35.00	$\frac{1}{8}$	13-FT	10
F-294	35.00	$\frac{1}{4}$	13-FT	10
F-295	37.50	$\frac{1}{8}$	14-FT	12
F-296	70.00	$\frac{3}{8}$	15-FT	28

Nos.	Per 100	Male I.P.T., in.	Used with hose, No.	Wt. per 100, lbs.
Male Iron Pipe Thread to Hose				
F-10	\$25.00	$\frac{1}{8}$	13-FT	7
F-11	25.00	$\frac{1}{4}$	13-FT	8
F-12	34.00	$\frac{1}{8}$	14-FT	9
F-13	30.00	$\frac{1}{4}$	14-FT	11
F-14	50.00	$\frac{1}{8}$	15-FT	13
F-15	50.00	$\frac{1}{4}$	15-FT	14
F-16	50.00	$\frac{3}{8}$	15-FT	16
F-17	80.00	$\frac{3}{8}$	16-FT	20
F-18	105.00	$\frac{1}{2}$	16-FT	24

Male Iron Pipe Thread Elbow to Hose				
F-19	\$27.50	$\frac{1}{8}$	13-FT	9
F-20	27.50	$\frac{1}{4}$	13-FT	12
F-21	30.00	$\frac{1}{8}$	14-FT	14
F-22	30.00	$\frac{1}{4}$	14-FT	16
F-23	75.00	$\frac{1}{8}$	15-FT	16
F-24	75.00	$\frac{1}{4}$	15-FT	16
F-25	75.00	$\frac{3}{8}$	15-FT	16
F-26	115.00	$\frac{3}{8}$	16-FT	28
F-27	135.00	$\frac{1}{2}$	16-FT	34

Nos.	Per 100	Female I.P.T., in.	Used with hose, No.	Wt. per 100, lbs.
Female Iron Pipe Thread to Hose				
F-28	\$27.50	$\frac{1}{8}$	13-FT	8
F-29	27.50	$\frac{1}{4}$	13-FT	10
F-30	30.00	$\frac{1}{8}$	14-FT	13
F-31	30.00	$\frac{1}{4}$	14-FT	13
F-32	45.00	$\frac{1}{8}$	15-FT	17
F-33	45.00	$\frac{1}{4}$	15-FT	19
F-34	45.00	$\frac{3}{8}$	15-FT	18
F-35	80.00	$\frac{3}{8}$	16-FT	22
F-36	105.00	$\frac{1}{2}$	16-FT	27

Female Iron Pipe Thread Elbow to Hose				
F-37	\$28.50	$\frac{1}{8}$	13-FT	11
F-38	28.50	$\frac{1}{4}$	13-FT	13
F-39	32.50	$\frac{1}{8}$	14-FT	16
F-40	32.50	$\frac{1}{4}$	14-FT	19
F-41	75.00	$\frac{1}{8}$	15-FT	22
F-42	75.00	$\frac{1}{4}$	15-FT	25
F-43	75.00	$\frac{3}{8}$	15-FT	34
F-44	115.00	$\frac{3}{8}$	16-FT	34
F-45	115.00	$\frac{1}{2}$	16-FT	41

Nos.	Per 100	Size, in.	Used with hose, No.	Wt. per 100 lbs.
Grommet				
103-FT	\$ 1.50	$\frac{1}{4}$	13-FT	$\frac{1}{8}$
106-FT	2.00	$\frac{1}{8}$	14-FT	$\frac{1}{8}$
109-FT	2.50	$\frac{3}{8}$	15-FT	$\frac{1}{8}$
112-FT	4.00	$\frac{1}{2}$	16-FT	$\frac{1}{8}$
Sleeve				
102-FT	\$ 7.60	$\frac{1}{4}$	13-FT	$\frac{3}{4}$
105-FT	8.00	$\frac{1}{8}$	14-FT	1
108-FT	9.00	$\frac{3}{8}$	15-FT	1
111-FT	11.00	$\frac{1}{2}$	16-FT	1 $\frac{1}{2}$
Nut				
101-FT	\$ 9.00	$\frac{1}{4}$	13-FT	2
104-FT	10.00	$\frac{1}{8}$	14-FT	3
107-FT	11.00	$\frac{3}{8}$	15-FT	5
110-FT	14.00	$\frac{1}{2}$	16-FT	7

HI-DUTY SHUT-OFF COCKS

IMPERIAL

A leak proof shut-off cock for gas, oil, and air lines. Outstanding features include: spring tension on packing gland; solid bottom; easy turning; integral bracket; light weight and high resistance to vibration.



No. 100-HD



No. 101-HD



No. 102-HD



No. 103-HD



No. 104-HD



No. 105-HD



No. 106-HD



No. 108-HD



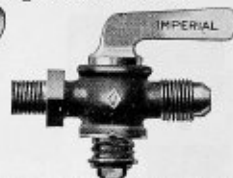
No. 114-HD

O.D. of tube, in.	Each	Female I.P.T., in.	Male I.P.T., in.	Std. Pkg.	Wt. per 100, lbs.
No. 100-HD—Two Way					
$\frac{1}{8} \times \frac{1}{8}$	\$1.65	.....	.....	..	27
$\frac{1}{8} \times \frac{1}{4}$	1.70	.....	.....	..	28
$\frac{1}{4} \times \frac{1}{4}$	1.75	.....	.....	..	33
$\frac{1}{8} \times \frac{1}{2}$	1.85	.....	.....	..	43
$\frac{1}{2} \times \frac{1}{2}$	2.00	.....	.....	..	60
No. 101-HD—Two Way					
$\frac{1}{8}$	\$1.60	.....	$\frac{1}{8}$	..	33
$\frac{1}{8}$	1.65	.....	$\frac{1}{8}$	..	31
$\frac{1}{4}$	1.70	.....	$\frac{1}{8}$	..	27
$\frac{1}{4}$	1.75	.....	$\frac{1}{4}$	..	29
$\frac{1}{8}$	1.75	.....	$\frac{1}{8}$	..	38
$\frac{1}{8}$	1.80	.....	$\frac{1}{4}$	..	50
$\frac{1}{8}$	1.85	.....	$\frac{1}{4}$	..	49
No. 102-HD—Two Way					
.....	\$1.70	.....	$\frac{1}{8} \times \frac{1}{8}$	..	20
.....	1.75	.....	$\frac{1}{4} \times \frac{1}{4}$	..	45
.....	1.90	.....	$\frac{3}{8} \times \frac{3}{8}$	..	75
No. 103-HD—Two Way					
.....	\$1.70	$\frac{1}{8}$	$\frac{1}{8}$	..	26
.....	1.85	$\frac{1}{4}$	$\frac{1}{4}$	..	37
.....	2.55	$\frac{3}{8}$	$\frac{3}{8}$	..	75
No. 104-HD—Two Way					
.....	\$1.70	$\frac{1}{8} \times \frac{1}{4}$	.....	..	30
.....	1.85	$\frac{1}{4} \times \frac{1}{4}$	.....	..	40
.....	2.55	$\frac{3}{8} \times \frac{3}{8}$	.....	..	78
No. 105-HD—Three Way					
$\frac{1}{8} \times \frac{1}{8} \times \frac{1}{8}$	\$2.10	.....	.....	..	35
$\frac{1}{8} \times \frac{1}{8} \times \frac{1}{4}$	2.20	.....	.....	..	38
$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$	2.35	.....	.....	..	33
$\frac{1}{8} \times \frac{1}{8} \times \frac{1}{2}$	2.50	.....	.....	..	73
$\frac{3}{8} \times \frac{3}{8} \times \frac{3}{8}$	2.75	.....	.....	..	74
No. 106-HD—Three Way					
$\frac{1}{8} \times \frac{1}{8}$	\$2.05	.....	$\frac{1}{8}$	..	36
$\frac{1}{8} \times \frac{1}{8}$	2.15	.....	$\frac{1}{8}$	..	39
$\frac{1}{4} \times \frac{1}{4}$	2.25	.....	$\frac{1}{8}$	..	34
$\frac{1}{4} \times \frac{1}{4}$	2.35	.....	$\frac{1}{4}$	..	51
$\frac{1}{8} \times \frac{1}{8}$	2.40	.....	$\frac{1}{4}$	..	68
$\frac{1}{8} \times \frac{1}{8}$	2.45	.....	$\frac{1}{4}$	..	62
$\frac{3}{8} \times \frac{3}{8}$	2.60	.....	$\frac{1}{4}$	..	64
No. 108-HD—Three Way					
.....	\$2.20	$\frac{1}{8} \times \frac{1}{8} \times \frac{1}{8}$	.....	..	33
.....	2.50	$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$	.....	..	53
.....	3.75	$\frac{3}{8} \times \frac{3}{8} \times \frac{3}{8}$	.....	..	88
No. 114-HD—Four Way					
.....	\$4.00	$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4} \times \frac{1}{4}$	.....	..	75

SHUT-OFF COCKS

IMPERIAL

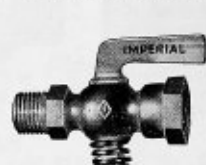
Each plug is individually ground into a perfect seat and held tight by a coiled spring at the bottom. They are guaranteed to be gasoline tight and to open and close at a slight turn of the lever handle. Square or hex gives a broad bearing for the wrench.



Nos. 27EF to 57EF Nos. 28EF to 58EF Nos. 27SAE to 57SAE



Nos. 28SAE to 58SAE



No. 48E and 49E

Nos.	Each	O.D. of tube, in.	Size of I.P.T., in.	Std. Pkg.	Wt. per 100, lbs.
27EF	\$1.30	$\frac{1}{4}$	$\frac{1}{8}$	25	22½
227EF	1.40	$\frac{1}{4}$	$\frac{1}{4}$	25	24
29EF	1.30	$\frac{1}{8}$	$\frac{1}{8}$	25	22½
229EF	1.40	$\frac{1}{8}$	$\frac{1}{4}$	25	25
57EF	1.45	$\frac{3}{8}$	$\frac{1}{4}$	25	32½
28EF	1.30	$\frac{1}{4}$	..	25	24
30EF	1.40	$\frac{1}{8}$	..	25	25
58EF	1.70	$\frac{3}{8}$	..	25	31
27SAE	1.20	$\frac{1}{4}$	$\frac{1}{8}$	25	22
227SAE	1.30	$\frac{1}{4}$	$\frac{1}{4}$	25	22½
29SAE	1.20	$\frac{1}{8}$	$\frac{1}{8}$	25	22½
229SAE	1.40	$\frac{1}{8}$	$\frac{1}{4}$	25	23
57SAE	1.50	$\frac{3}{8}$	$\frac{1}{4}$	25	27½
28SAE	1.25	$\frac{1}{4}$	..	25	21
30SAE	1.30	$\frac{1}{8}$	..	25	22½
58SAE	1.50	$\frac{3}{8}$	..	25	27½
Nos.	Each	Female I.P.T., in.	Male I.P.T., in.	Std. Pkg.	Wt. per 100, lbs.
48E	\$0.98	$\frac{1}{8}$	$\frac{1}{8}$	25	16
49E	1.20	$\frac{1}{4}$	$\frac{1}{4}$	25	20

DRAIN COCKS

IMPERIAL



Nos. 37E and 38E



Nos. 200E and 203E

Nos.	Each	Female I.P.T., in.	Std. Pkg.	Wt. per 100, lbs.
37E	\$0.45	$\frac{1}{8}$	25	12½
38E	.65	$\frac{1}{4}$	25	15
200E	.95	$\frac{1}{8}$	25	15
201E	.50	$\frac{1}{4}$	25	11
202E	1.35	$\frac{3}{8}$	25	18
203E	1.45	$\frac{1}{2}$	25	25

TUBE BENDER

IMPERIAL



Makes it a simple matter to bend tubing by hand without collapsing the tube. Overall length 7½ in.

No. 102F—Specially prepared spring wire, cadmium plated.

For tube, in.	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$
Each	.....	.....	.....	.....	.....
	\$0.25	.30	.35	.40	.45

No. 101F—Set of six benders; one of each size as enumerated above; wt. per set 1½ lbs. \$2.10

TUBE CUTTERS **IMPERIAL**



For cutting copper, brass, block tin and lead tubing. Makes a right-angle cut quickly and cleanly, leaving no burrs or chips to clog the line.

Leaves tubing round, ready for flaring. Has reamer and a brass forged body. Excellent for use in hard to get at places.

Each
No. 94F—Takes $\frac{1}{8}$ to $\frac{3}{4}$ in. O. D. tubing; wt. each $\frac{3}{4}$ lb.\$2.25
No. 104F—Takes $\frac{3}{4}$ to 1 in. O. D. tubing; wt. each $\frac{3}{4}$ lb., no reamer. 3.50

Extra Parts Each
No. 96F—Cutting wheel\$0.25
No. 97F—Reamer blade for No. 94F .25
No. 26883—Screw for cutting wheel. .06
No. 31296—Screw for reamer blade. .03

IMPERIAL JUNIOR



Smaller size tube cutter for same uses as above. Makes a quick, clean right angle cut without flattening tube. Used same as the regular type.

Handy size for easy carrying in kit and fits easily in palm of hand.

Each
No. 127F—Takes all sizes from $\frac{1}{8}$ in. to and including $\frac{3}{4}$ in. O. D. tube; wt. each $\frac{1}{4}$ lb.\$1.25

FLARING TOOLS **IMPERIAL**



Flares copper or brass tubing to make up S.A.E. flared joints without cracking or splitting. No loose dies to become lost or mislaid and no vise needed.

May be used to flare tubing already in place on the car if desired.

Each
No. 93F—Flares $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ in. tubing\$3.00
No. 95F—Flares $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$, and $\frac{3}{4}$ in. tubing 4.00
No. 103F—Flares $\frac{3}{4}$, $\frac{1}{2}$ and 1 in. tubing 5.00
Weight each about 3 pounds.

Extra Parts

Each
Yoke for No. 93F\$1.25
Yoke for No. 95F 1.65
Yoke for No. 103F 2.25
Wing Nut15
Bar Only for No. 93F 1.90
Bar Only for No. 95F 2.60
Bar Only for No. 103F 3.00
Compressor Cone25

MOTOR CLEANER **IMPERIAL**



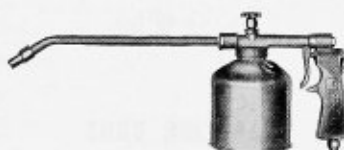
Pistol Grip Handle

The construction of the handle makes it possible to use the cleaner for hours without tiring the hand.

Kerosene and compressed air are used giving a powerful spray which quickly removes dirt and grease from motor and machinery. Air is controlled by a trigger valve, and the amount of kerosene is regulated by a needle valve. Complete with 6 ft. of flexible metal hose.

Each
No. 37C—Wt. each $2\frac{1}{4}$ lbs.\$4.85
No. 28502—Hose spud connection... .25

SPRING OILERS **IMPERIAL**



Pistol Grip Handle

Will greatly increase the business of service stations. Pistol grip handle and trigger and valve makes this oiler easy to operate. Complete with metal container, special oil regulating valve, two extra diaphragms and seat assemblies.

Each
No. 35C—Wt. each $3\frac{1}{2}$ lbs.\$5.75
No. 28502—Hose spud connection... .25

AIR NOZZLES **IMPERIAL**



For use on compressed air lines to blow dirt, metal chips, clean gasoline and oil lines, etc. Fits comfortably in the palm of hand. Has button control valve and special washers prevent leakage; furnished with two extra washers. Nickel finish.

Each
No. 42A—Wt. each 6 oz.\$1.50

Extra Parts

Each
No. 19873—Nozzle only\$0.25
No. 28776—Washers only05
No. 140C—Nipple, for making inlet; $\frac{1}{4}$ in. male I.P.T.30

RADIATOR WATER FAUCETS **IMPERIAL**



Long spout and extra capacity for quick filling of radiators. Anti-splash insert in nozzle gives a straight solid stream without spray; long lever offers ease of operation and accurate adjustment from a fine to a heavy stream.

Faucet is self-closing and leak-proof. Made of bronze; white nickel finish; threaded for $\frac{3}{4}$ in. hose connection.

Each
No. 291G—Wt. each $1\frac{1}{4}$ lbs.\$1.25

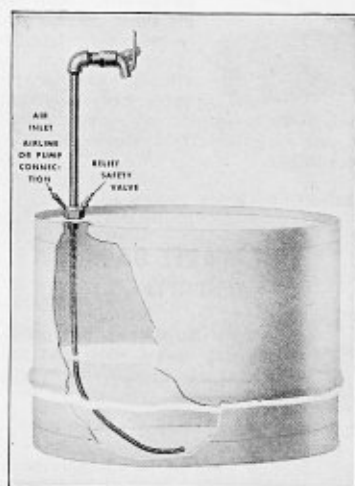
CAR WASHERS **IMPERIAL**



Has trigger control air valve, located so that supply of air can be shut off instantly; water valve is also conveniently located. With these two valves any graduation from a solid stream of water to a fine mist can be obtained. Made of brass and built to withstand hard usage.

Each
No. 39C—Wt. each 3 lbs.\$6.85

LIQUID DISPENSERS **IMPERIAL**



With Safety Relief Valve

For alcohol, turpentine, oil, thinners, cleaners, liquid soap, liquid chemicals, etc. Genuine Sette faucet which has metal to metal seat.

Dispenser can be easily attached to all barrels or tanks and removes all of liquid without tipping or tilting barrel.

Air is put into tank at the Schrader valve connection of the dispenser.

Each
No. 45A—Wt. each 4 lbs.\$2.50

LIFT DRAINS HUFFMAN



Built of heavy steel, hot-dip galvanized, then enameled red.

Equipped with 2 in. castors. Telescoping funnel can be locked at any desired height.

Each
No. 176—Cap. 13½ gals.; wt. each 34 lbs.\$25.20
No. 177—Same as above except Huffman funnel wrench; wt. each 36 lbs. 31.40
No. 178—Funnel wrench only; wt. each 6 lbs. 6.20



Junior

Built of heavy steel, hot-dip galvanized then enameled red.

Telescoping funnel can be locked at any desired height.

Each
No. 179—Capacity 5 gals.; wt. each 17 lbs.\$13.40
Open stock.

DRAIN PANS HUFFMAN PORTABLE



Made of heavy gauge steel, with single seam at rear protected by handle; skids on bottom and hinged handle for quick, easy handling; special baffle prevents oil slopping over when pan is pulled from under car. Red enamel finish.

Each
No. 175—Capacity 4 gals.; wt. each 8 lbs.\$5.52

OILY WASTE CANS

JUSTRITE

Automatic

No springs are used—it opens with the foot and closes automatically.

Body of 24 gauge galvanized sheet steel, cover of 22 gauge sheet steel, legs and handle of ½ in. band iron, double seamed and soldered leakproof.

Underwriters' label on all cans.

Nos.	1	2	3	5
Cap., gals.	6	8	10	14
*Height, in.	13	14	15	17
Width, in.	11½	12½	13½	15½
Wt. each, lbs.	11	13	15	17
Each	\$4.00	4.50	5.00	6.00

Open stock.

*Height does not include legs which are 4 inches high.

RADIATOR FILLER CANS HUFFMAN



Made of heavy gauge black steel, and has a reinforcing band of iron around base which takes up bottom wear; rigid bail handle. Hot-dip galvanized after assembly.

Each
No. 101—Capacity 3 gals.; wt. each 6½ lbs.\$2.50

Six in a carton.

Made of heavy black steel, corrugated for extra strength; wire bail handle. Hot-dip galvanized after assembly.

Each
No. 100—Capacity 3 gals.; wt. each 4½ lbs.\$1.95

Six in a carton.

GASOLINE CANS JUSTRITE SAFETY



No. 1



No. 5

Body of heavy coated lead plate double seamed and soldered. Rounded dome, red enamel finish. Natural hand grip lever opens spout cap in one operation, cap closes automatically as soon as grip is released. Can be filled directly thru the spout from hose at any filling station without use of funnel.

Cans up to one gallon size inclusive have easy grip opening lever.

The bottoms on the 2, 3 and 5 gallon sizes are reinforced by a steel ring.

Nos.	¾	1½	2½	1
Cap., gal.	¾	1½	2½	1
No. in carton	6	6	6	6
Wt. carton, lbs.	10	12	18	22
Each	\$2.00	2.25	2.50	3.00

Nos.	2	3	5
Cap., gals.	2	3	5
No. in carton	3	3	3
Wt. carton, lbs.	16	25	28
Each	\$3.50	4.50	5.50

VALVE GRINDING COMPOUND CLOVER

The abrasives used in this compound are the hardest and sharpest electric-furnace product known. Suitable for grinding valves, lapping cylinders, fitting piston rings, etc.

Grease Mixed in Duplex Cans



Each can contains 2 grades—E (coarse) for roughing and A (fine) for finishing. The 4-ounce can is fitted with quick-grip cover, the 2-ounce can with compression tight cover.

Size cans	2 oz.	4 oz.
Cans in carton	12	12
Weight carton, lbs.	3	5½
Each	\$0.35	.50

Grease Mixed in Single Grade Cans

Put up in the following grades: 2A—Microscopic Fine, 1A—Very Fine, A—Fine, B—Medium Fine, C—Medium, D—Medium coarse, E—Coarse, 50—Very Coarse.



Size cans	½ lb.	1 lb.
Cans in carton	12	6
Wt. carton, lbs.	9½	9
Each	\$0.85	1.50

IRON CEMENT SMOOTH-ON

No. 1—Powder Form



A quick-hardening iron cement in powdered form. Used by mixing with water. For repairing breaks in castings, making tight joints and seams and stopping leaks in boilers, pipe lines, pressure containers, etc. Becomes hard as iron when metallized and expands at the same rate. May be used on iron, brass, steel, copper, lead, aluminum, etc. Will withstand fire, water, steam, oil and very high pressures.

Size cans	7 oz.	1 lb.	5 lb.
Cans in carton	72	36	6
Weight carton, lbs.	32	36	30
Each	\$0.30	.50	2.50

No. 2—Powder Form

A slow-hardening hydraulic iron cement sold in powdered form. Used by mixing with water and will set in very wet places or under water. Used for repairing breaks in castings, making tight joints and seams and stopping leaks in boilers, pipe lines, pressure containers, etc. Becomes hard as iron when metallized and expands at the same rate. May be used on iron, brass, steel, copper, lead, aluminum, etc. Will withstand fire, water, steam, oil, and very high pressure.

Size can	1 lb.	5 lb.
Cans in carton	36	6
Wt. carton, lbs.	36	30
Each	\$0.50	2.50

GRAPHITE GUNS

DIXON'S GRAPH-AIR



Used to deposit any required amount of pure powdered graphite where it is needed — delicately controlled air pressure results from squeezing rubber gun.

Nozzle-dial volume control and shut-off. Shut-off feature makes gun practical to carry in tool kits without spilling graphite. Base is soft chamois-faced burished—snaps out and in. Head screws out of large opening, making refilling easy.

Each

Graph-Air—Filled with Microfyne graphite\$0.75

GRAPHITE

DIXON'S MICROFYNE FLAKE



In Chute Cans

Can be used by itself in powder form through Dixon's Graph-Air gun or in the same manner as other Dixon finely powdered flake graphites are used. Also used as a co-lubricant with plain oil or grease.

Genuine natural flake graphite of controlled quality and uniformity, mechanically purified of all abrasive and deleterious foreign matter.

Microfyne graphite is protected when chute is closed. When chute is open the graphite pours easily and cleanly.

Each

No. 8—Approximately 8 oz. cans;
weight per dozen 9 lbs.\$0.50
12 in a carton.

DIXON'S TICONDEROGA FLAKE



Has many valuable applications as a lubricant for cylinders, valves and bearings, either alone or mixed with oil and greases.

Prepared in a large (No. 1) flake and the powdered (No. 2) size.

Nos.	632	633	634
Size cans, lbs.	1	5	10
Cans in case	36	10	5
Per pound	\$0.45	.40	.37½

GRAPHITE

DIXON'S No. 635



Minute Flake

A special minutely sub-divided powdered flake graphite, adapted for lubricating mechanisms, having very close fitting bearing surfaces.

Excels in controlled purity and uniformity.

Size cans, lbs.	1	5	10
Cans in case	36	10	5
Per pound	\$0.75	.65	.65

WHIZ POWR-PAX



Colloidal

The finest grade of colloidal graphite, scientifically blended with a highly heat resistant, low cold test fluid. When added to motor oil it remains in permanent suspension and gives additional lubrication, protection and resistance to friction for piston rings, wrist pins, bearings, cam shafts, and cylinder walls. Passes through all types of filters.

Size can	1 qt.	1 gal.
Cans in case	12	6
Per can	\$1.00	2.90

GRAPHITED GREASE

DIXON'S No. 676



Developed principally for water pump cups. Is high heat-resisting. Will not melt or run.

Size cans, lbs.	1	5	10
Cans in case	36	10	6
Per pound	\$0.55	.50	.48

DIXON'S WATERPROOF



A water-repelling adhesive grease for large unhooused (open) gears, wire ropes, chains, etc. High speeds will not throw it off. Insoluble in fresh, salt and alkaline water and acids.

Excellent for elevator plungers and fire hydrant valves and caps.

Size cans, lbs.	1	5	10
Cans in case	36	10	6
Per pound	\$0.34	.29	.27

GRAPHITED GREASE

DIXON'S CUP AND PRESSURE GUN



Water Insoluble

Available in 6 consistencies, Nos. 0, 1, 2, 3, 4 and 5. (Specify consistency.)

Retains consistency over a wide temperature range.

Nos. 3 and 5 for general use. No. 0 is about consistency of heavy oil, No. 5 that of soft tallow.

More economical than plain greases because it does not need to be replaced as frequently, saving much in both lubricant and labor.

Size cans, lbs.	1	5	10
Cans in case	36	10	6
Per pound	\$0.50	.45	.43

DIXON'S UNIVERSAL JOINT



A special spongy grease for universal joints, including Spicer, Ford, ball and socket types and those having high pressure fittings and cups. It is an exceptional lubricant for this purpose. Can be used in all types of high pressure systems.

Size cans, lbs.	1	5	10
Cans in case	36	10	6
Per pound	\$0.50	.45	.43

DIXON'S GEAR LUBRICANT



Possesses same stability against cold, heat and water and is of the consistency of No. 2 cup grease. Keeps gears and bearings free from power-wasting, lubricant drag. Can be applied through pressure guns and systems.

Size cans, lbs.	1	5	10
Cans in case	36	10	6
Per pound	\$0.50	.45	.43

GRAPHITE SEAL

DIXON'S



Not Soluble In Oil

Functions both as a seal and a lubricant on all threaded, gasketed and flange pipe and other joints to make them tight against hot and cold oil, gasoline and non-aqueous solvents, assuring quick, easy assembling and disassembling of connections.

Size cans, lbs.	1	5	10
Cans in case	36	10	6
Per pound	\$0.75	.50	.50

FIRE EXTINGUISHERS

PHOMENE

Foam Type



Blankets fire—particularly fires in oil, gasoline, naphtha, tar, wax, grease, shellac and inflammable solvents. Extinguishes fire that soda and acid type extinguishers will not touch.

Releases 22 gallons of fire-killing foam which spreads over the surface, liquid or solid, cutting off the supply of oxygen and forming a tough, airtight and fireproof blanket that will not permit the fire to re-ignite after it is once extinguished.

Heavy cold rolled copper.

Must be recharged yearly and protected against frost.

Inspected and labeled by the Underwriters' Laboratories and approved by the Factory Mutual Laboratories, the U. S. Steamboat Inspection Service and the Factory Insurance Association.

Each

No. P13—Polished Copper; 2½ gal. capacity; 24 in. high; complete with charge and wall bracket; wt. filled 38 lbs.; wt. packed 26½ lbs.\$20.00

No. P12—Nickel Plated; otherwise same as No. P13 22.00

No. P14—Chromium Plated; otherwise same as No. P13.... 23.00

GUARDENE

Soda and Acid Type



The 2½ gallon Guardene Soda and Acid (Chemical) Extinguisher will extinguish incipient fires in free-burning materials—such as wood, rubbish and textiles—where the cooling and quenching effect of water is of first importance. This extinguisher throws a stream 40 feet in any direction. It should be protected against frost.

The three container units—shell, dome and bottom—are made of finest quality cold rolled copper.

All seams are thoroughly sweated and heavily backed with solder. The side seam is riveted in addition to soldering.

As a further safeguard against corrosion, the interior is completely coated with a lead-alloy.

To operate, tip the extinguisher up-side-down. To stop the flow turn right-side-up. It must be recharged immediately after use.

Inspected and labeled by Underwriters' Laboratories and approved by Associated Factory Mutuals and U. S. Steamboat Inspection Service.

Each

No. S13—Polished Copper; 2½ gal. cap.; 24 in. high; complete with charge and wall bracket; wt. filled 40 lbs.; ship. wt. each 21 lbs.\$17.00

No. S12—Nickel Plated; otherwise same as No. S13..... 19.00

No. S14—Chromium Plated; otherwise same as No. S13.... 20.00

ESSANAY

Wet Chemical Type



Finest cold rolled copper steel, dome and bottom. Heavily backed with solder and sweated seams. The interior is completely coated with a lead-alloy to prevent corrosion. Ejects a stream 40 feet in any direction.

Inspected and labeled by Underwriters' Laboratories and approved by the Factory Mutual Laboratories.

Each

No. SX13—Polished Copper; 2½ gal. cap.; 24 in. high; wt. filled 38 lbs.; ship. wt. each 19 lbs.\$15.00

No. SX12—Nickel Plated; otherwise same as No. SX13 17.00

No. SX14—Chromium Plated; otherwise same as No. SX13 18.00

All above, one in a carton.

FIRE EXTINGUISHERS

PYRENE

Special Size for Motor Cars



This extinguisher of one pint capacity modeled after the one quart size has a special bracket for mounting on the steering post of the car—easy to reach—out of the way—instantly available.

It will quickly extinguish any incipient fire in oil, gasoline, wood or upholstery.

Non-freezing—throws a steady continuous fire smothering stream from a safe distance.

Every automobile owner should be protected with this device.

Fully charged ready for use and equipped with attaching bracket.

Each

No. C11A—Polished Brass; 1 pt. capacity; wt. each 4 lbs....\$10.50

No. C12A—Nickel Plated; otherwise same as No. C11A.... 12.00

No. C14A—Chromium Plated; otherwise same as No. C11A... 12.50

One in a carton.

FIRE EXTINGUISHER RECHARGES

PYRENE LIQUID



A chemical combination, especially prepared to extinguish all classes of fire in its incipient stage, under all conditions. Has no injurious action on the extinguisher parts and will not damage fabrics. It does not deteriorate with age and may be subjected to a temperature of minus 50 degrees F. without becoming in any way impaired in its effectiveness. Safe on electrical fires as it is non-conducting.

Nos.	CR1	CR2	CR3	CR4
Size can	1 pt.	1 qt.	1½ qt.	1 gal.
Cans in carton	20	20	10	4
Wt. carton, lbs.	39½	77½	57½	59
Per can	\$0.75	1.50	2.25	5.40

Note—Pyrene Liquid can be supplied in 20 and 50 gallon drums.

PHOMENE (FOAM)



The proper charge for all extinguishers bear the trade mark "Phomene."

Insurance authorities require annual inspection and charging.

Each

No. PR1—2½ gallon; wt. per carton 59 lbs....\$1.60
12 in a carton.

SODA AND ACID

For Guardene and Essanay Fire Extinguishers

Guardene and Essanay charges contain the highest grade sulphuric acid and soda bicarbonate packed in airtight containers, acid bottles sealed with safety closure.

Insurance authorities require annual inspection and recharging of soda and acid extinguishers.

Each

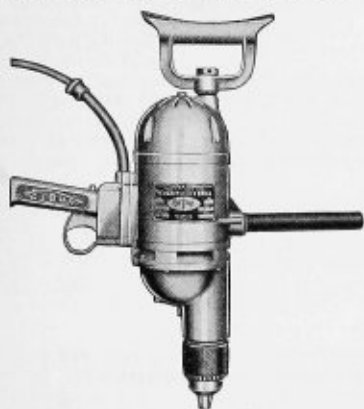
No. SR1—For Guardene extinguishers; 2½ gallon; wt. per carton 64 lbs....\$0.55

No. SXR1—For Essanay extinguishers; 2½ gallon; wt. per carton 64 lbs.... .40
24 in a carton.

PORTABLE ELECTRIC DRILLS

SIOUX

The drill body of Sioux drills is an aluminum die casting, with steel inserts which support the ball bearings, unusually tough, has a smooth hard surface which will not collect grease. Balanced power distributes the load more evenly. Each drill combines a powerful motor in a well balanced unit for general shop work. Gear case and armature ball bearings are permanently oil packed and sealed. Helical gears give additional strength as there are more teeth in mesh at the same time and the load is more evenly distributed. They are much quieter and smoother in operation, vibration and sudden shock are eliminated. Gears are made of chrome nickel steel and are heat-treated to increase durability. A correctly designed system of ventilation prevents over-heating even with the drill in long continuous use. Momentary switch with a special locking device—arranged so that switch may be held in contact by means of a trigger or by locking the contact when in use for a period of time. Provided with a 110 volt A.C. or D.C. universal motor and 15 feet of three conductor cord and plug; third wire is for grounding.

**3/4 Inch Heavy Duty**

Each

No. 1575—Cap. in steel $\frac{3}{8}$ to $\frac{3}{4}$ in.; cap. in wood up to $1\frac{1}{2}$ in.; no load speed 400 R.P.M.; length over all 23 in.; complete with $\frac{3}{4}$ in. three jaw chuck and key; shipping wt. each 35 lbs.....\$85.00

3/4 Inch Heavy Duty

Each

No. 1560—Cap. in steel $\frac{3}{8}$ to $\frac{5}{8}$ in.; cap. in wood up to $1\frac{1}{4}$ in.; no load speed 400 R.P.M.; length over all $19\frac{1}{2}$ in.; complete with $\frac{3}{4}$ in. three jaw chuck and key; shipping wt. each 32 lbs.....\$75.00

3/4 Inch Heavy Duty

Each

No. 1550—Cap. in steel up to $\frac{1}{2}$ in.; cap. in wood up to 1 in.; no speed load 525 R.P.M.; length over all $18\frac{1}{4}$ in.; complete with $\frac{1}{2}$ in. three jaw chuck and key; shipping wt. each 27 lbs.....\$67.50

1/2 Inch Standard

Each

No. 1545—Cap. in steel up to $\frac{1}{2}$ in.; cap. in wood up to 1 in.; no load speed 600 R.P.M.; length over all 18 in.; complete with $\frac{1}{2}$ in. three jaw chuck and key; shipping wt. each 25 lbs.....\$55.00

3/8 Inch Honing Drill

The proper drill to use for hones. It turns the hone at practical working speed and combines three outstanding features—power, speed and light weight.

No. 1570—Cap. in steel up to $\frac{5}{8}$ in.; cap. in wood up to $1\frac{1}{4}$ in.; no load speed 450 R.P.M.; length over all $19\frac{1}{2}$ in.; complete with $\frac{5}{8}$ in. three jaw chuck and key; shipping wt. each 19 lbs.....\$75.00

Note—All the above drills can be furnished with a Universal 220-volt A.C. or D.C. motor, or a 32 volt D.C. motor at the same price.

NOTE—All Prices on this Page are Dealers Net Prices.

**1/4 Inch Heavy Duty**

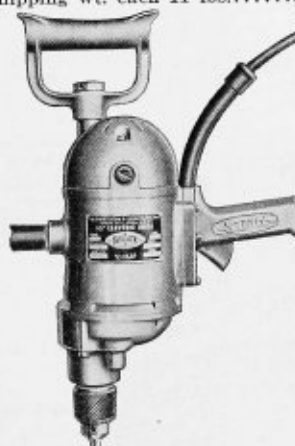
Each

No. 1525—Cap. in steel up to $\frac{1}{4}$ in.; cap. in wood up to $\frac{1}{8}$ in.; no load speed 1650 R.P.M.; length over all $12\frac{1}{2}$ in.; complete with $\frac{1}{4}$ in. three jaw chuck and key; shipping wt. each 12 lbs.....\$45.00

1/4 Inch Standard

Each

No. 1500—Cap. in steel up to $\frac{1}{4}$ in.; cap. in wood up to $\frac{1}{2}$ in.; no load speed 2000 R.P.M.; length over all 12 in.; complete with $\frac{1}{4}$ in. three jaw chuck and key; shipping wt. each 11 lbs.....\$36.00

**Sioux 1/2 Inch**

Each

No. 1546—Cap. in steel up to $\frac{1}{2}$ in.; cap. in wood up to 1 in.; no load speed 525 R.P.M.; length over all 18 in.; complete with $\frac{1}{2}$ in. three jaw chuck and key; shipping wt. each 23 lbs.....\$43.50

**Sioux 3/8 Inch**

Each

No. 1541—Cap. in steel up to $\frac{3}{8}$ in.; cap. in wood up to $\frac{3}{4}$ in.; no load speed 925 R.P.M.; length over all $13\frac{1}{2}$ in.; complete with $\frac{3}{8}$ in. three jaw chuck and key; shipping wt. each $12\frac{1}{2}$ lbs.....\$40.00

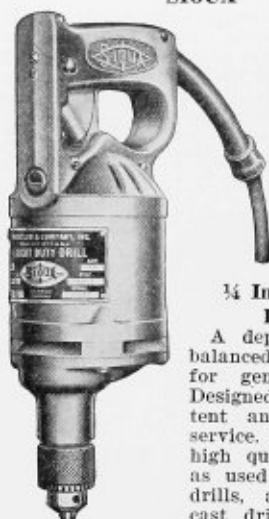
**Sioux 3/8 Inch**

Each

No. 1537—Cap. in steel up to $\frac{3}{8}$ in.; cap. in wood up to $\frac{5}{8}$ in.; no load speed 1250 R.P.M.; length over all $13\frac{1}{4}$ in.; complete with $\frac{3}{8}$ in. three jaw chuck and key; shipping wt. each $12\frac{1}{2}$ lbs.....\$40.00

PORTABLE ELECTRIC DRILLS

SIOUX



1/4 Inch Light Duty

A dependable, well balanced electric drill for general drilling. Designed for intermittent and light duty service. Built of same high quality material as used in all Sioux drills, aluminum die cast drill body, heat treated steel gears, and embodies the Sioux system of ventilation.

Provided with a 110 volt A.C. or D.C. motor and 10 ft. of cord.

Each

No. 1480—Cap. in steel up to 1/4 in.; cap. in wood up to 3/8 in.; no load speed 2000 R.P.M.; length over all 10 1/2 in.; 1/4 in. cap. chuck; shipping wt. each 7 lbs. \$21.50



Little Sioux 1/2 Inch

This strong, sturdy, light-weight drill has more than enough power for every 1/2 in. drilling job. The clamp handle is adjustable, detachable and affords a way to secure perfect control, greater leverage, and ease in handling. Makes fast work of tough drilling jobs heretofore inaccessible.

Provided with a universal A.C. or D.C. motor and 15 ft. of three conductor cord and has all the features of the larger Sioux drills.

Each

No. 1548—Cap. in steel up to 1/2 in.; cap. in wood up to 3/8 in.; no load speed 525 R.P.M.; 1/2 in. three jaw chuck and key; shipping wt. each 12 1/2 lbs. \$37.50
All Prices Dealers Net

CYLINDER HONES

HALL

Model "H" For Wet or Dry Honing

Has micrometer adjustment. Any good 1/2 inch drill will carry it.

Equipped with three section driver, one set each of roughing and finishing stones; special dresser for fabric guides and instructions.

The only hone that can be operated either wet or dry. Cuts very fast dry and produces a glass smooth finish when used wet.

Each

No. H—Range 2 1/2 to 4 1/2 in.; wt. each 13 lbs. \$45.00
One in a box.

EXTRA STONES FOR MODEL H

For Wet or Dry Honing (2 stones and 2 fabric guides.)

Per set

No. 2UC—Coarse \$3.80
No. 2UM—Medium 3.80
No. 2UF—Fine 3.80

For Wet Honing Only (4 stones.)

Per set

No. 40UC—Coarse \$3.80
No. 40UM—Medium 3.80
No. 40UF—Fine 3.80

Hall 500 Grit Super-Finishing Stones

Used after regular finishing stones, they produce a glass smooth finish.

Per set

No. 2SF—Dry stones (2 stones and 2 guides) \$4.50
No. 4SF—Wet stones (4 stones) 4.50

HALL HONING COMBINATION

Consists of model "H" hone, hone stand and vacuum system.

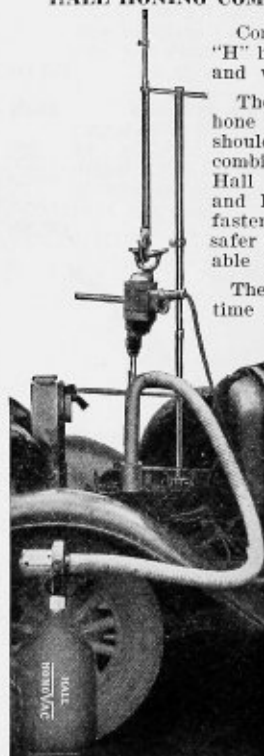
The model "H" hone when used dry should be used in combination with the Hall honing stand and Honovac for faster, finer, easier, safer and more profitable honing.

The Honovac saves time in cleaning up after honing and eliminates the possibility of damage to motor cylinders and operator from honing dust.

The honing stand handles all cylinder and wall. Will not injure cylinder and permits honing a single cylinder without removing piston in adjacent cylinder.

Each

No. HC—Complete outfit consisting of Model "H" hone, Honovac and honing stand. \$87.50
All Prices Dealers Net



WIRE WHEEL BRUSHES

RED CENTER

Standard



Recommended in all cases where a long sweep is required in cleaning deep corners, pits and irregular surfaces in fittings and casting of all kinds; for removing deposits of dirt or scale on irregular surfaces, for cleaning rust or deposits of hardened grease from pipe threads, valves and similar parts; corners in tanks, wall surfaces, engines or motor parts; steel drums and boiler fittings.

regular surfaces, for cleaning rust or deposits of hardened grease from pipe threads, valves and similar parts; corners in tanks, wall surfaces, engines or motor parts; steel drums and boiler fittings.

Nos.	412	612	812
Diam. brush, in....	4	6	8
Face width, in....	1	1 1/4	1 3/4
Weight each, lbs....	1 1/2	2	2 3/4
Each	\$2.22	3.00	4.15

Special

The "special," being denser and a more severe abrasive, is recommended in surfaces that cannot be readily cleaned with the standard. It is adaptable for cleaning hard scale and rust from drums, oil refinery fittings and general industrial equipment.

Nos.	422	622
Diameter brush, in....	4 1/4	6
Face width, in....	3/4	1 1/4
Wt. each, lbs....	1 1/2	2 1/4
Each	\$2.32	3.70

Nos.	822	1025
Diameter brush, in....	8	10
Face width, in....	1 1/2	3 1/2
Wt. each, lbs....	3	10
Each	\$4.60	14.35

Heavy Duty

The "Heavy Duty" because of its very dense face, will accomplish a cutting almost equal to a coarse abrasive stone, yet by adapting itself to surface irregularities, permits cleaning without scoring. For removing scale, rubber, carbon, cement, it has no equal. However, it is not recommended for cleaning greasy fittings because of the tendency of the grease to pack the surface of the brush and interfere with its abrasion.

Nos.	432	632	832
Diam. brush, in. . .	1 1/2	6	8
Face width, in....	1	1 1/4	1 3/4
Wt. each, lbs.	1 1/2	2 1/2	3 3/4
Each	\$2.40	3.95	4.95

Nos.	1035	1036
Diam. brush, in.	10	10
Face width, in....	3	3 1/2
Wt. each, lbs....	11 1/2	13 1/4
Each	\$15.10	17.90

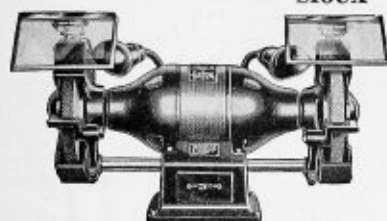
Important—Specify size of arbor hole required.

Note—All 4-inch Red Center wheels furnished with 1 1/8 inch maximum arbor hole.

6 inch "Standard" wheels furnished with 1 1/2 inch maximum arbor hole. All other wheels furnished with 2 inch maximum arbor hole.

BENCH GRINDERS

SIoux



10 Inch Heavy Duty

For production use and all general shop grinding and buffing. The long tapered housing allows ample clearance for passing the work in front of the motor. Heavy duty ball bearings are oil packed and sealed requiring no further lubrication.

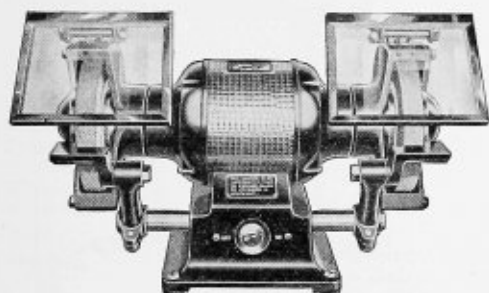
Enclosed guards with 6x8 inch shatter-proof safety eye shields. Spark guards and tool rests which are adjustable for wheel wear. Conveniently located lights with shades. Two 10x1 in. with 3/4 in. hole grinding wheels, one fine, one coarse.

Equipped with one of the following motors—be sure to specify on order; 3/4 H.P., 110 or 220 volt A.C., 1, 2, or 3 phase, 60 cycle 1725 R.P.M., 50 cycle 1425 R.P.M. May also be furnished in 115 or 230 volt D.C., 2000 R.P.M. at a slight additional cost.

No. 2050—10 in. grinder; 3/4 H. P. motor; wt. each 200 lbs..\$ 98.00

No. 2049—Same as above but equipped with a heavy cast iron pedestal with water pot and tool tray; wt. each 350 lbs. 122.00

No. 2054—Pedestal only; wt. each 150 lbs..... 24.00



7 Inch Heavy Duty

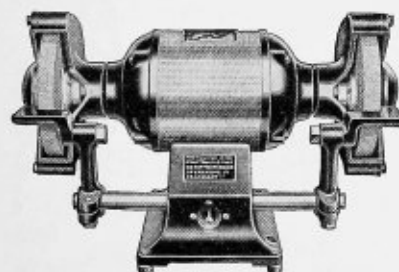
A heavy duty ball bearing grinder. Ball bearings are oil packed and sealed, requiring no further lubrication.

Provided with enclosed type guards and safety eye shields. Complete as shown, two 7x1x5/8 in. grinding wheels, one fine and one coarse; electric cord, switch and plug.

Equipped with one of the following motors—be sure to specify: 1/2 H.P., 60 cycle, 3450 R.P.M.; 50 cycle, 2850 R.P.M. 110 or 120 volt A.C.; or 110 or 120 volt D.C. Single Phase motors. If two or three phase is desired, specify on order.

No. 2035—7 in. grinder, 1/2 H.P. motor; wt. each 100 lbs..\$60.00

No. 2038—Same as above except equipped with No. 455 wire brush 60.00



6 Inch Heavy Duty

A heavy duty ball bearing grinder. Ball bearings are oil packed and sealed, requiring no further lubrication. Complete as shown with adjustable tool rests, enclosed type guards, two 6x3/4x1/2 in. grinding wheels, one coarse and one fine, 10 ft. of electric cord, attachment plug and switch.

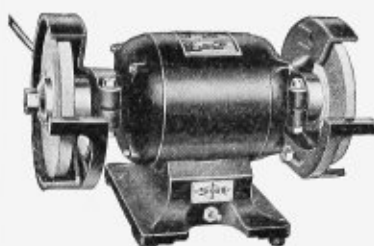
Equipped with one of the following motors—be sure to specify: All 1/4 H.P. motors, 60 cycle, 3450 R.P.M. or 50 cycle, 2850 R.P.M. Single Phase motors, if two or three phase is desired, specify in order. 110 or 220 volt D.C. motor can also be furnished at a slight additional charge.

No. 2005—6 in. grinder, 1/4 H.P. motor; wt. each 70 lbs.\$42.00

No. 2010—Same as above except equipped with No. 451 wire brush 42.00

BENCH GRINDERS

SIoux



6 Inch

A continuous duty, dust proof, ball bearing grinder. Ball bearings are oil packed and sealed, requiring no further lubrication.

Complete with adjustable tool rests and two 6x 3/4x1/2 in. grinding wheels, one fine and one coarse.

Equipped with one of the following motors—be sure

to specify 1/4 H.P., 110 or 120 volt A.C. 60 cycle, 3450 R.P.M., or 50 cycle, 2850 R.P.M. May also be furnished in 32, 110 or 220 volt D.C. at a slight additional cost.

No. 2065—6 in. grinder; 1/4 H.P. motor; wt. each 46 lbs....\$32.00



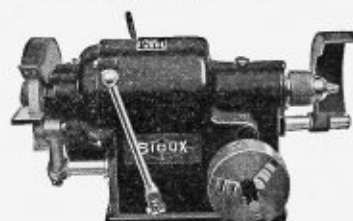
6 Inch

A dust proof ball bearing grinder. Ball bearings are oil packed and sealed, requiring no further lubrication.

Complete with tool rests and two 6x1/2x1/2 in. grinding wheels, one coarse and one fine; 8 ft. cord, attachment plug and switch.

No. 2070—6 in. grinder; 1/4 H.P. motor; wt. each 42 lbs....\$23.50

SIoux UTILITY MACHINE



With Two Chucks

The 5 inch reamer drive chuck may be operated at any of the following speeds: slow speed of 29 R.P.M., intermediate speed of 46 R.P.M., and high speed of 69 R.P.M.

The 5/8 inch chuck is driven at motor speed. Very useful for buffing, polishing and wire brush cleaning. A guard is provided for use with this chuck.

A 7x3/4x1 inch grinding wheel is furnished. Ideal for tool and general purpose grinding. The guard and tool rest are adjustable to the size of the wheel.

Braking Device—When the switch is turned off and pressure is applied to the switch and brake lever it immediately brings the chucks and grinding wheel to a stop.

Equipped with one of the following motors: 1/2 H.P. motor, 60 cycle, 110-220 volt, 3450 R.P.M. or 50 cycle 110-220 volt, 2850 R.P.M.; 110 and 220 volt, D.C. motors.

The above motors are 1 phase. If 2 or 3 phase motors are desired, be sure to specify on order. Same price applies.

No. 2000—7 in. grinding wheel; 1/2 H.P. motor; wt. each 170 lbs.\$165.00

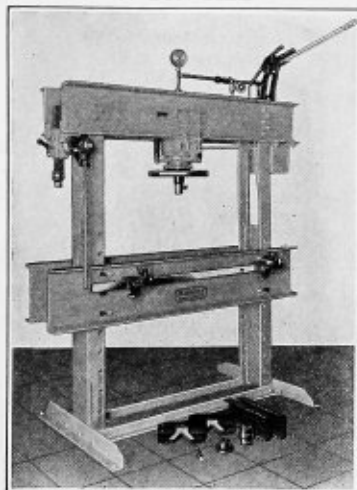
NOTE—All Prices on this Page are Dealers Net Prices.

HYDRAULIC PRESSES

MANLEY

- Open Frame**—The frame is so constructed that the end of long pieces may be passed through the open sides for straightening.
- Bolted Construction**—Gives maximum strength and eliminates any possibilities of a weak frame due to stretched or cracked metal in a bending operation.
- Table Adjustment**—A hand crank at the rear of the press table enables one man to adjust the table quickly with minimum effort.
- Hand Levers**—Are so located that the operator can work in a natural position yet keep his eyes on the work.
- Instant Release**—A turn of the hand valve automatically pulls the ram away from the work.
- Pressure Gauge**—Indicates exact pressure being exerted in tons.
- Depth Gauge**—Marked in inches and conveniently located at the front of press, clearly showing the travel of the ram—of special value when working in recesses or pressing bushings, or similar jobs.
- Three-Ton Rack and Pinion Press**—Operated independently and without interfering with the main press. The rack with 10% in. travel takes care of a large variety of work with no adjustment of the table necessary.
- Test Centers**—Conveniently located on the side of the press table directly in front of the operator. A horizontal bar permits easy adjustment for any length of work.

60 TON SIZE



Especially adapted for truck and bus work, where extremely heavy pressure is required. Equipped with two hydraulic pumps; one for fast work at moderately heavy pressure, the other for extremely heavy pressures up to 60 tons.

A spin of the ball bearing hand wheel carries the nose of the ram to or from the work with practically no loss of time.

Equipment consists of two malleable iron "V" blocks, and one "V" nose and extension pin, one differential shaft remover and one screw cap, and two channel blocks for straightening work.

Specifications

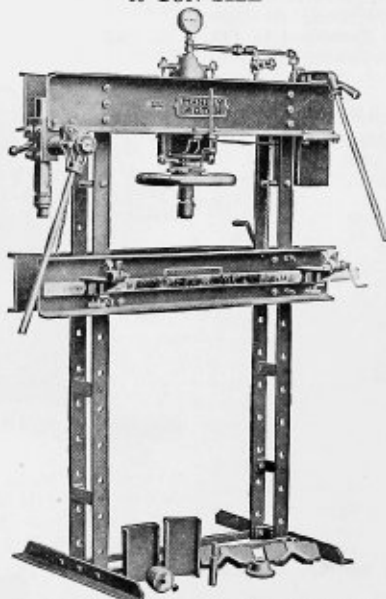
Height over all, in.....	84
Floor space occupied, in.....	36x68½
Width between upright frame, in....	45
Width between table channels, in....	8½
Travel of table, in.....	28
Travel of piston, in.....	7½
Travel of screw, in.....	7¾
Size of table channels, in.....	12
Size of upper channels, in.....	10

Each

No. 6A—Hydraulic Press; wt. each	1373 lbs.	\$285.00
No. 26A—Press with rack and pinion attachment; wt. each	1431 lbs.	310.00
No. 26A49—Press with rack and pinion test centers; wt. each	1471 lbs.	325.00
No. 20E—Rack and pinion attachment only; wt. each 72 lbs....		25.00
No. 49—Test centers only; wt. each 35 lbs.....		15.00

Note—All Hydraulic Presses are furnished complete with all the necessary handles and a pressure gauge, shipped assembled ready to operate.

40 TON SIZE



A spin of the ball bearing hand wheel carries the nose of the ram to or from the work with practically no loss of time.

Equipment consists of two malleable iron "V" blocks, one "V" nose and extension pin, one differential shaft remover and one screw cap, and two channel blocks for straightening work.

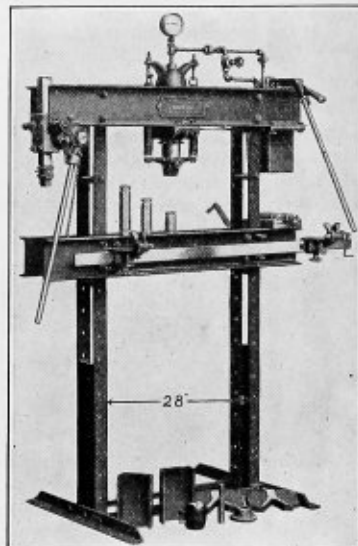
Specifications

Height over all, in.....	82
Floor space occupied, in.....	30x53
Width between upright frame, in....	30
Width between table channels, in....	6½
Travel of table, in.....	35
Travel of piston, in.....	7¼
Travel of screw, in.....	7¾
Size of table channels, in.....	8
Size of upper channels, in.....	8

Each

No. 8A—Hydraulic press; wt. each	718 lbs.	\$160.00
No. 28A—Press with rack and pinion attachment; wt. each	775 lbs.	180.00
No. 28A49—Press with rack and pinion and test centers; wt. each 810 lbs.		195.00
No. 20B—Rack and pinion attachment only; wt. each 65 lbs....		20.00
No. 49—Test centers only; wt. each 35 lbs.....		15.00

25 TON SIZE



The hydraulic principle almost entirely eliminates frictional loss, making possible tremendous pressure with little effort (20 tons in 3 seconds with 2 strokes).

Arbors of three different lengths merely slipped into a socket in the ram and held there by a ball and spring, permit quick and simple adjustment to work.

Equipment consists of three arbors of different lengths, a tray to place on table to hold the arbors, 2 malleable iron "V" blocks, 1 "V" nose and extension pin, 1 differential shaft remover, 1 screw cap, and 2 channel blocks for straightening work.

Specifications

Height over all, in.....	77¾
Floor space occupied, in.....	30x50¾
Width between upright frame, in....	27½
Width between table channel, in....	5¼
Travel of table, in.....	35¼
Travel of piston, in.....	5½
Size of table channels, in.....	6
Size of upper channels, in.....	6

Each

No. 9A—Hydraulic press; wt. each	573 lbs.	\$135.00
No. 29A—Press with rack and pinion attachment; wt. each	624 lbs.	155.00
No. 29A49—Press with rack and pinion and test centers; wt. each 659 lbs.		170.00
No. 20D—Rack and pinion attachment only; wt. each 60 lbs....		20.00
No. 49—Test centers only; wt. each 35 lbs.....		15.00

NOTE—All Prices on this Page are Dealers Net Prices.

GARAGE JACKS **WALKER ROLL-A-CAR**

Mechanical Type

Meets the requirements of truck and bus service stations—a big brute of a Roll-a-Car that lifts six tons. One man can easily lift the capacity of this jack, because of the greater leverage which is compounded through gears. And what is equally important, this big jack is built to take all the punishment that heavy bus and truck service gives.

Embodies all the advantages of design and operation that have made Roll-A-Cars the accepted standard of service jacks. Easily and quickly positioned—starts low and raises high—lifts from any position and has ample factor of safety. Handle operates in three positions. Requires only 12 inch stroke to make lift. Automatic reverse lever operates when high lifting point is reached. Drop forged cap is 4½ inch square with

a dished center to take drain plug. Cap rests on heavy bearing. Strong parallel arms insure rigidity and hold cap level at all points during the lift.

Nos.	760	760A	768	768A
Cap. tons.	6	6	6	6
Height, in.	5¼	5¼	7¼	7¼
Lift, in.	12	12	12	12
Full height, in.	17¼	17¼	19¼	19¼
Frame, in.	55½	37½	55½	37½
Handle, in.	49	49	49	49
Wheels, in.	6	6	10	10
Wt. each, lbs.	282	254	304	276
Each	\$97.50	97.50	104.50	104.50

Mechanical Type

Designed to take care of all knee action cars and all others as well. Frame height is low enough to allow jack to go under all interfering points, such as splash aprons, beaver tails, running boards and bumpers, even with two tires flat. Longer chassis meets demand of new car designs having elongated rear ends and overhangs. Lifting cap is unusually large to receive wider axles between prongs and to prevent slippage.

Additional Features — Counter-balancing of weight for easy positioning; shorter stroke of handle, with three lifting positions and any position desired for dollying; quick raise of cap to lifting point; automatic reverse when cap reaches maximum height; ample over-capacity for long life—and many positive safety controls.



Nos.	745	746	*747	749
Cap. tons.	2½	2½	2½	2½
Saddle of cap, in.	3¼	4½	4½	5½
Prong of cap, in.	4¼	5	5	6
Power raise, in.	14¼	14¼	14¼	14¼
Height, in.	20	20¾	20¾	21¼
Frame, in.	60¼	61	61	62
Handle, in.	45	45	45	45
Over all length, in.	96¼	97	97	98
Front wheels, in.	4½	6	6	8
Wt. each, lbs.	164	169	174	174
Each	\$38.50	40.50	52.50	45.00

*Equipped with rubber tread front wheels.

NOTE—All Prices on this page are Dealers Net Prices.

Mechanical Type

Speed and ease of handling all present-day cars make this jack the last word in a mechanical curb-jack. It is designed to meet the requirements of all new cars as well as older models.

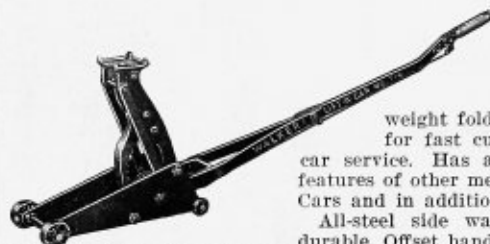


With its long handle and short stroke and its long, low frame, it operates without the slightest interference under low splash aprons and overhanging front and rear ends. Cap raises to lifting point instantly by pulling lever on handle. Has plenty of lifting range to take care of all knee action cars, even with two tires flat.

No. 717—Cap. 1½ tons, lift 16¼ in., saddle of cap 3¼ in. high, prongs of cap 3¼ in. high, height over all 20 in., length chassis 24 in., length handle 58¼ in., diam. front wheels 4 in.; wt. each 80 lbs.\$22.50

Junior Mechanical Type

A new light weight folding handle jack for fast curb and trouble-car service. Has all the essential features of other mechanical Lift-A-Cars and in addition is priced low.



All-steel side walls, strong and durable. Offset handle and balanced construction make positioning and lifting easy—handle is long enough to reach under low set bumpers, overhanging front or rear end.

Ample power and lifting range to raise front or rear wheel clear of floor.

No. 714—Cap. 1 ton, lift 14¾ in., saddle of cap 3½ in. high, prongs of cap 4 in. high, height over all 18¾ in., length chassis 20¼ in., length handle 51¼ in.; diam. front wheels 3 in.; wt. each 59 lbs.\$17.50

Hydraulic Type

Streamlined from handle grip to lifting cap—with low-to-floor chassis, perfect balance and rolling ease.

Tubular streamlined handle conceals all operating mechanism—may be used in any one of three lifting positions.

Convenient knob at top of handle controls lowering speed—also locks handle in any of three operating positions.

Side walls of jack are one-piece malleable iron castings. Oversize lifting cap is drop forging. Husky ball bearing casters extra strong to stand up under continuous use.

Completely enclosed hydraulic housing protects unit from dirt and leakage.

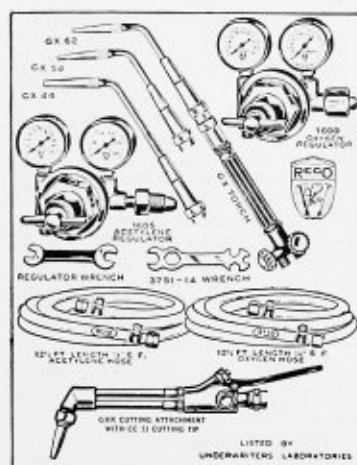


Two hydraulic pumps built into jack — a speed pump that raises cap to load quickly, a power pump to raise load.

No. 785—Cap. 3¼ tons, lift 20¼ in., saddle of cap 3¼ in. high, prongs of cap 4¼ in. high, height over all 24 in., length chassis 46¼ in., length handle 41¼ in., diam. front wheels 4½ in.; wt. each 198 lbs.\$59.50

REGO WELDING AND CUTTING EQUIPMENT

"GENERAL PURPOSE" WELDING AND CUTTING OUTFIT



This outfit is specified for all operations involving alternate welding and cutting. It is especially recommended for millwright departments, blacksmith shops, for maintenance of contractors' equipment and for all pipe welding operations.

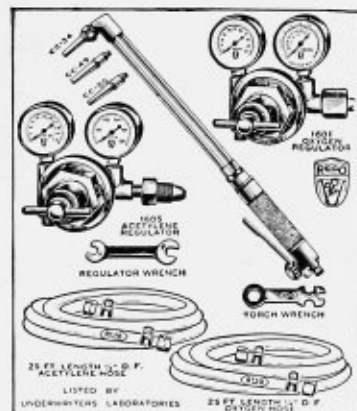
Outfit contains Rego GX Universal Torch with tip assemblies as shown, GX62 for sheet metal welding, GX54 for medium welding and GX44 for heavy heating and welding up to 1 inch thickness. Large double gauge (2 1/2 in.) Rego heavy duty forged brass regulators, two 12 1/2 foot lengths of hose, two wrenches and instruction

chart. Also contains the G.K. cutting attachment with tip for cutting up to 2 inch iron or steel, but tip sizes may be had for cutting up to 8 inch thickness, if desired. For this reason the outfit is furnished with No. 1601 oxygen regulator.

Net per outfit

No. 5514—Complete outfit as illustrated; wt. per outfit 31 lbs.\$98.00

"FULL RANGE" CUTTING OUTFITS



This cutting outfit produces a much faster cut at a lower fuel gas and oxygen consumption than the ordinary outfit. These are proved facts. It is popular in steel mills, steel foundries, ship yards, scrap yards, steel construction and wrecking jobs, and general industrial work where severe service is given such equipment. Cuts iron and steel from 1/8 to 12 inches.

The torch used in this outfit is adaptable to other types of fuel gases, such as Butane, Propane, etc. The forged brass, large size oxygen and acetylene regulators are built to allow a free flow of the large volumes of gas required for cutting operations.

The equipment as illustrated above completes the outfit.

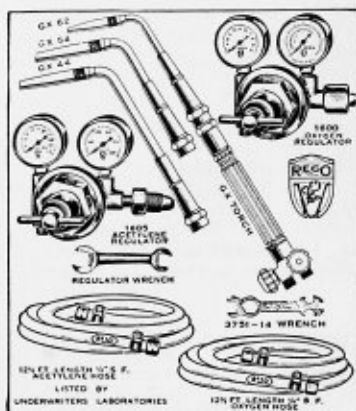
Net per outfit

No. 5515—Oxy-Acetylene outfit; wt. per outfit 35 lbs.\$92.00

No. 5515X—Propane, Butane, Shellane, Flamo, Pyrogen, etc. outfit; wt. per outfit 35 lbs. 92.00

No. 5515XX—Hydrogen, Carbo-Hydrogen outfit; wt. per outfit 35 lbs.92.00

"ALL PURPOSE" WELDING OUTFIT



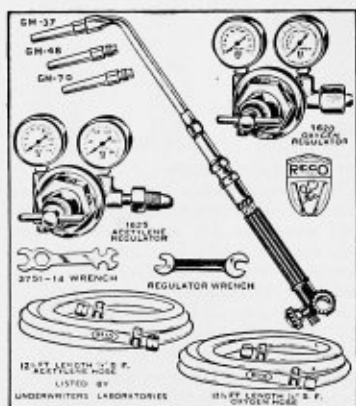
A base outfit assembled to meet the requirements of mine, mill, railroad, construction camp and fleet truck maintenance service.

It contains the famous Rego GX Universal Torch with tip assemblies as shown, GX62 for sheet metal welding, GX54 for medium welding and GX44 for heavy heating and welding up to 1 inch thickness. This outfit can be made to cover a wide range by adding additional tip assemblies. It contains large (2 1/2 in.) double gauge Rego heavy duty forged brass regulators. Two 12 1/2 foot lengths of hose, two wrenches and instruction chart complete the outfit.

Net per outfit

No. 5513—Complete outfit as illustrated; wt. per outfit 29 lbs.\$71.25

PROFITMAKER WELDING OUTFITS



These outfits are the same as the No. 5513 outfit as described above except that they are furnished with smaller 2 inch diaphragm regulators, and optional styles of welding tips. They meet the demand of small repair shops for a dependable welding outfit for intermittent service at attractive prices.

Net per outfit

No. 5530X—Complete outfit as illustrated; wt. per outfit 18 lbs.\$55.80

No. 5531X—Complete outfit except that GX tip assemblies are furnished in place of those shown; wt. per outfit 18 lbs. 59.75

No. 5533X—Complete outfit except that single gauge regulators (1630 and 1635) are furnished in place of those shown; wt. per outfit 17 lbs. 48.80

GOGGLES
DUST

Automobile and dust goggles. Made of white metal with folding side shields and full cable temples.

Per dozen

No. 1000C—Clear lenses; wt. per dozen 18 ozs.\$12.00

One in a box; one dozen boxes in a carton.

SPRAY GUNS

BINKS

Thor Model 2

A smooth, uniformly wet spray can be readily applied by even an inexperienced operator.

Smooth, well rounded, pistol-grip handle of die-cast aluminum. Drop forged bronze body and drop forged bronze air nozzle. Special stainless steel fluid nozzle and special hardened stainless steel alloy needle valve stem.

Easily cleaned without disassembling.

Each

No. 2—Air hose connections $\frac{1}{4}$ in. pipe thread, material hose connections $\frac{3}{8}$ in. pipe thread; wt. each 2 lbs.....\$28.00



SPRAY PAINTING UNITS

BINKS

Will do all painting operations at any place where light socket is available to furnish necessary power.

Small, extremely compact, completely self-contained, yet light in weight — can be carried by convenient hand grip.

Compressor Specifications—Compressor is driven by $\frac{1}{4}$ H.P. electric motor with 10 ft. length rubber covered cord and plug. Handy on-and-off toggle switch on motor. Compressor is one-cylinder, air cooled, wick feed lubrication, bore 2 in., stroke 1 $\frac{1}{2}$ in., displacement 2.23 cu. ft. per minute, speed 700 R.P.M. Pulley has fan blade spokes for cooling purposes and is driven through a "V" belt. Air chamber is 3 in. diameter by 9 in. high and is used as oil and water extractor. It is constructed with fins to cool the air; equipped with drain cock, safety pop valve; connected to compressor by copper tube; mounted on pressed steel base fitted with rubber feet. Hose connections have standard pipe thread.

Over all dimensions of compressor unit: 18 $\frac{1}{2}$ in. long, 9 $\frac{1}{2}$ in. wide, 14 $\frac{1}{4}$ in. high.

Contents of Unit

- 1—Spray Gun with flat, round and right angle spray nozzle.
- 1—Quart pressure type cup.
- 1—15 ft. length $\frac{1}{4}$ in. (2-ply) rubber air hose and connections.
- 1—Compressor unit.
- 1—Wrench, cleaning tool and brush.

Per unit

No. C34EX—With $\frac{1}{4}$ H.P., 110-volt A.C., 60 cycle motor, shipping wt. per unit 62 lbs.....\$52.95

Recommended for the larger shops where requirements are most exacting. Includes our finest spray gun and highest grade oil and water extractor.

Can be furnished for applying any material to any surface. Air requirements Thor Model 2 gun, specify one desired: 6x8—7 C.F.M.; 5x3—4 $\frac{1}{2}$ C.F.M.

Contents of Unit

- 1—Thor Model 2 spray gun.
- 1—Quart size aluminum syphon cup.
- 1—25 ft. length $\frac{1}{2}$ in. air hose (5-ply) and connections.
- 1—Oil and water extractor with pressure regulator and two gauges.

Per unit

No. 9—Weight per unit 20 lbs.....\$64.30



SPRAY PAINTING UNITS

BINKS



The grouping of the items in Unit No. 2 has been made to meet requirements mid-way between those served by the Unit No. 9 and Unit No. 3. Here the refinements of the gun with the finger tip adjustment for all degrees of spray from flat to round are combined with the less expensive Oil and Water Extractor. Ready to attach to available air line.

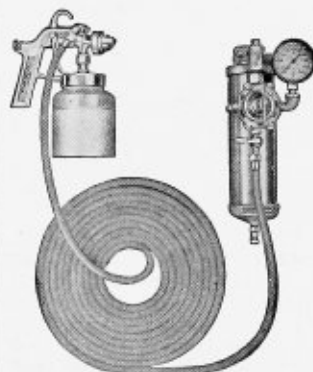
Air requirements: 70x70—3 C.F.M.; 80x82—3 C.F.M.; 80x81—6 C.F.M. Specify one desired.

Contents of Unit

- 1—Spray gun with pint cup and attachment.
- 1—Oil and water extractor.
- 1—25 ft. length air hose (2-ply) and connections.

Per unit

No. 2—Weight per unit 13 lbs.....\$39.75



Built to meet a demand for a complete unit of inexpensive type where simplicity and ease of operation are important. Used extensively for refinishing used cars, body painting, fender repairing and small production painting where amount and size of work does not require a large capacity unit.

Contents of Unit

- 1—Spray gun with screw top quart cup.
- 1—Oil and water extractor with one air regulator and one gauge.
- 1—25 ft. length, $\frac{1}{4}$ in. air hose (2-ply) and connections.

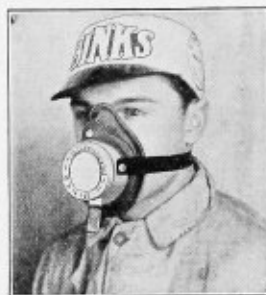
Air requirements: 5x3—4 $\frac{1}{2}$ C.F.M.; 6x8—7 C.F.M. Specify one desired.

Per unit

No. 3—Weight per unit 13 lbs.....\$37.75

RESPIRATORS

BINKS VICTOR



Filter Pad Type

Shell of light aluminum with rubber padding, formed to contour of face.

Fits snugly and comfortably.

The chemically treated filter pad, through which the operator breathes, neutralizes the odors of lacquer and paint fumes and prevents any possibility of inhaling spray dust.

Each

No. 2A—Complete with 12 extra filter pads • wt. each $\frac{3}{4}$ lb...\$2.50
One in a box.

Per 100

Extra Filter Pads—For use with No. 2A respirator; wt. per 100, 1 lb.....\$1.75

Fifty in a box.

NOTE—All Prices on this Page are Dealers Net Prices.

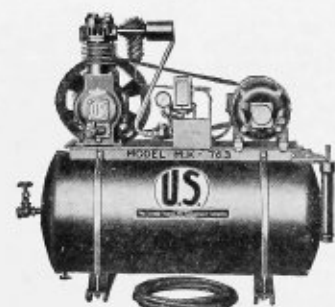
AIR COMPRESSORS

U. S.

Two Stage Automatic

A heavy duty, two stage, air-cooled compressor especially designed for super service stations with varied air requirements.

The V type belts run in grooves, not only on motor pulley, but also pump pulley, a feature found on very few compressors. This assures proper belt traction which means quicker starting and much longer life of belts.



Clean cut steel base, electrically welded and rigidly reinforced; base is securely locked to tank; it cannot shift. Steel tank of highest grade construction, tested to twice the working pressure; brazed seam and locked and brazed head. Drain valve is provided for the purpose of draining condensed water from tank; side drain to accommodate high bucket. New disc type check valve with renewable composition seat. Pressed steel tank base welded to tank; pressed steel feet welded to tank. Pressure switch which starts and stops the motor is operated by the air pressure in the tank; air gauge indicates tank pressure. The safety valve which is located immediately behind the air gauge is provided to safeguard against building up excessive pressure, valve opens and lets air escape when pressure in tank reaches point at which valve is set. This valve is constructed with a special alloy seat and will not leak. Fan flywheel with heavy rim smooths out intermittent load of compressor, fan-shaped spokes circulate air through the intercooler fins, cylinder wall fins and under oil reservoir, thus insuring maximum cooling. Intake silencer eliminates suction noises without affecting the capacity or operation of the compressor. Large capacity air outlet valve of rugged construction can be placed at either end of tank. The visible oil gauge which is placed where it can be seen and easily cleaned is of special U. S. design. Equipped with 25 ft. of five ply heavy duty air hose, fitted with air chuck.

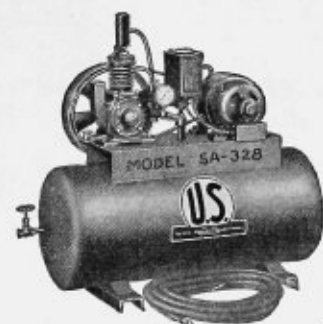
Specifications—1½ H.P. single phase A.C. 110-220V., 220-440V., 50 or 60 cycle motor; 2 cylinders; 7.0 cu. ft. displacement; 175 lbs. maximum pressure; tank capacity 65 gallons; width 22 in., length 54 in., height 45 in.

No. MK663—Shipping wt. each 645 lbs. \$255.00

Single Stage Automatic

An ideal unit for use in a small garage, service station or tire shop, where compressed air requirements are limited. It is built of the same materials and perfection as the larger unit, assuring efficient service and long life, a guaranteed high quality, competitively priced unit.

Equipped with the V type belt which runs in a groove not only on motor pulley, but also on pump pulley. This feature is found on very few



compressors and assures proper belt traction, which means quicker starting and much longer life of belt. Furnished complete with air hose and chuck.

Specifications—½ H.P. single phase A.C. 110-220V., 220-440V., 50 or 60 cycle motor; 1 cylinder; 2.5 cu. ft. displacement, 150 lbs. maximum pressure; tank capacity 32 gallons; width 16½ in., length 53 in., height 34 in.

No. SA328—Shipping wt. each 255 lbs. \$105.00

Note—The above compressors can also be furnished with one, two or three phase motors for other voltages and cycles, also for D.C. current.

HYDRAULIC AUTO LIFTS

U. S. OIL LOCKED DRIVE-ON-TYPE

Air Operated



A combination drive-on type lift with a U. S. Pit-Lift Air Jack. This famous combination is the only equipment that renders the now popular and efficient "Floating Body Lubrication" which has been copyrighted and trade-marked. It is without a doubt the most advanced and practical piece of automotive equipment yet devised for

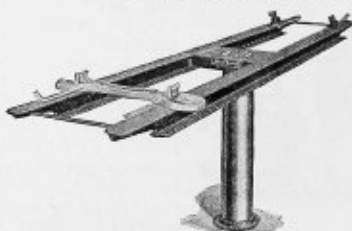
proper lubrication and has been acclaimed and endorsed by engineers and operators alike, throughout the entire country. "Floating Body Lubrication" is not a fad but comes as an absolute necessity for proper lubrication, raising the dead body and engine weight off bearings, while lubricating.

Each

No. A17—17¼ in. runways, 10% in. piston; Model No. 1 Pit-Lift Air Jack; shipping wt. each 2650 lbs. \$444.00

U. S. OIL LOCKED FREE WHEEL TYPE

Air Operated



Recommended for those establishments where tire repairing, brake lining, car washing and similar operations demand free turning of car wheels.

Extra heavy 5 inch H-beams, placed parallel, 30½ in. apart for entire length of runway, providing ut-

most accessibility to all parts of car. Sturdy cross members, also of extra heavy construction, and two tie rods give the Model A2 a strength and rigidity of super-structure.

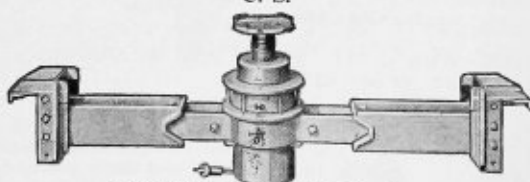
Front and rear axle supports furnished with lift accommodate all cars. The front axle attachment accommodates conventional axle cars as well as all type of knee action front wheel suspension. Furnished with the exclusive dual air control valve. Rails undercut at ends to provide toe clearance, rounded ends prevent damage to tires, and personal injury; adjustment rods for easy placing of blocks; hinged supports swing down out of way giving ample clearance for driving car on or off lift without removing supports from rails. Superstructure 16 ft. long, only 5 in. above ground at highest point.

Each

No. A2—10% in. piston; shipping wt. each 1610 lbs. \$299.00

PIT-LIFT AIR JACKS

U. S.



For Floating Body Lubrication To Be Used on Drive-On Type Lifts and Steel Rimmed Pits

When the body and engine weight is removed by this air operated jack the fittings are not pinched or cramped but are relaxed, consequently the grease flows freely around the entire bearing surface, then and only then is the car properly and thoroughly lubricated.

Adjustable to any position and operated by applying air through standard type air line chuck. End brackets are adjustable vertically to accommodate any height wheel flange. The saddle screw can be elevated 5 in. so as to contact the axle or chassis frame before applying air to lifting position.

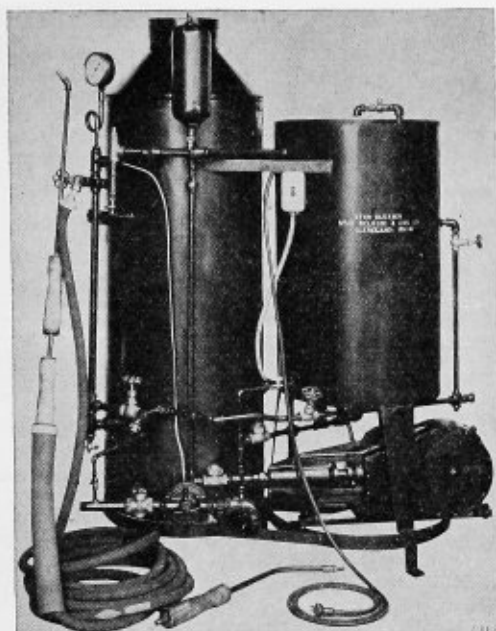
Each

No. 1—Adjustable from 31½ to 45 in.; shipping wt. each 100 lbs. \$49.00

NOTE—All prices on this Page are Dealers Net Price F.O.B. Destination.

VAPOR SYSTEM CLEANERS

STAR



Cleans every thing from heavy road machinery to small parts with steam plus water plus chemical process.

Fuels: Natural gas, artificial gas, fuel oil and kerosene.

Types: Stationary, semi-portable, and portable.

Special Catalog with Complete Information and Prices Will be
Furnished Upon Request

MECHANIC'S TOOL KITS

KENNEDY



Cantilever Trays

For the garage mechanic, electrician, or repairman, here is a general usage kit with four trays linked to the lids in such a way that they swing out of the kit smoothly and easily as the lids are opened. In these trays may be arranged all of the small tools and parts used most. The No. 1021 has compartments in the top trays for socket wrenches.

Equipped with leather handle, side catches, and multiple change lock. Three skid rails are welded to the bottom of the box for added strength and protection.

Finished in seal brown ripple baked enamel outside and dark green smooth baked enamel interior.

Nos.	1017	1018	1021
Length, in.	17	18	21
Width, in.	8	10	10
Height, in.	10	12½	12½
Weight each, lbs.	11¼	16¼	19
Each	\$7.50	8.00	8.50

One in a carton, six in a crate.

MECHANIC'S TOOL KITS

KENNEDY



Tray has handy divisions for small parts making the box well suited to the needs of most mechanics.

Three skid rails welded to bottom strengthen and protect kit. Equipped with leather handle, side catches and multiple change lock.

Seal brown ripple baked enamel outside finish with dark green smooth interior.

Nos.	116	118	120	122
Length, in.	16	18	20	22
Width, in.	9	10	11	11
Height, in.	11	13	13	13
Weight each, lbs.	9½	10¾	16	16½
Each	\$5.50	5.75	6.00	6.25

One in a carton, six in a crate.

UTILITY KITS

BIGHORN

Cantilever Tray

A solidly constructed first quality box at an exceedingly low price.

Double seamed ends, full length piano (continuous) hinge, and corner irons feature this box; cadmium plated fittings. Cantilever style tray is smooth working and rests firmly when extended.

Marproof green baked ripple enamel finish with fine white striping around lid.



No. S19—19 in. long, 7 in. wide, 7 in. high; wt. each 7½ lbs.	Each \$3.20
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One in a carton, six in a crate.



Short tray permits ready access to lower part of box without removal and it slides easily from end to end.

Continuous piano type full length hinge; leather handle; cadmium plated fittings.

Marproof green baked ripple enamel finish with fine white striping around lid.

No. C19—19 in. long, 7 in. wide, 7 in. high; wt. each 6¼ lbs.	Each \$2.80
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One in a carton, six in a crate.

TOTE TRAYS

KENNEDY



Designed for garage or tire service this tray is large enough to carry all the tools needed on the job, and it is very useful for work that requires tools to be carried away from the bench.

All steel construction; double seamed ends and rolled edges, electrically welded. Brown enamel finish.

No. 19T—19 in. long, 9¼ in. wide, 3 in. high; wt. each 5 lbs.	Each \$1.50
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Twelve in a crate.

BONNEY SOCKET WRENCHES

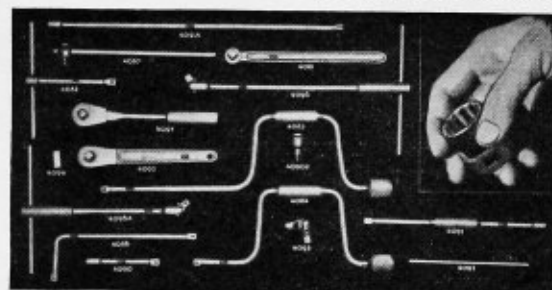
STANDARD SOCKET SERIES



Chrome-Vanadium Steel; 1/2 Inch Square Drive

Double Square			Hexagon		
Nos.	Each	Opening, in.	Nos.	Each	Opening, in.
4112	\$0.60	3/8	4012	\$0.60	3/8
4114	.60	7/16	4014	.60	7/16
4116	.60	1/2	4016	.60	1/2
4118	.60	5/8	4018	.60	5/8
4120	.60	3/4	4019	.60	3/4
4122	.70	7/8	4020	.60	7/8
4124	.75	1	4021	.60	1
4128	.75	1 1/8	4022	.70	1 1/8
4132	1.00	1 1/4	4024	.75	1 1/4
			4025	.75	1 1/2
			4026	.75	1 3/4
			4028	.75	1 7/8
			4030	.90	1 3/4
			4031	.90	1 3/8
			4032	.90	1
Double Hexagon			Straight Wall Double Hexagon		
Nos.	Each	Opening, in.	Nos.	Each	Opening, in.
D14	\$0.60	3/8	A14	\$0.75	3/8
D16	.60	7/16	A16	.75	7/16
D18	.60	1/2	A18	.75	1/2
D19	.60	5/8	A19	.75	5/8
D20	.60	3/4	A20	.75	3/4
D21	.60	7/8	A22	.75	7/8
D22	.70	1	A24	.90	1
D24	.75	1 1/8	A25	.90	1 1/8
D25	.75	1 1/4	A26	.90	1 1/4
D26	.75	1 1/2	A28	.90	1 3/4
D28	.75	1 3/4	A30	1.00	1 3/8
D30	.90	1 7/8	A31	1.00	1 3/4
D31	.90	2	A32	1.00	1 3/8
D32	.90	1			
D34	1.00	1 1/8			
D36	1.10	1 1/4			
D40	1.20	1 1/2			

STANDARD SERIES HANDLES AND ATTACHMENTS



Chrome-Vanadium Steel

Nos.	Each
No. 4081—Offset handle	\$1.80
No. 4082—"T" handle, 6 in. long	1.50
No. 4084—Brace, 13 in. long	2.25
No. 4085—Speeder, 20 in. long	2.50
No. 4086—Offset handle, 10 in. long	1.00
No. 4087—Sliding "T" handle, 11 in. long	1.65
No. 4087A—Sliding "T" handle, 15 in. long	1.80
No. 4090—Extension, 5 in. long	.90
No. 4090B—Extension, 2 in. long	.90
No. 4091—Extension, 10 in. long	1.80
No. 4091A—Extension, 20 in. long	1.70
No. 4092—Cross handle for 10 in. extension	.45
No. 4093—Ratchet, with lug	4.00
No. 4094—Extra lug for ratchet	.60
No. 4095—Universal joint	2.25
No. 4096—Hinge handle, 15 in. long	3.40
No. 4096A—Hinge handle, 10 in. long	3.15
No. 4097—Reversible Ratchet	5.00

STANDARD SERIES SOCKET SETS



No. G—Chrome-Vanadium Steel

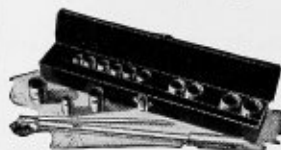
Made up expressly for the man who already has a number of attachments and is enlarging the assortment of sockets already in his set.

Set consists of eleven sockets put up in a cardboard box as follows:

No. D14—3/8 in. double hexagon socket
No. D16—1/2 in. double hexagon socket
No. D18—5/8 in. double hexagon socket
No. D19—3/4 in. double hexagon socket
No. D20—7/8 in. double hexagon socket
No. D22—1 in. double hexagon socket
No. D24—1 1/8 in. double hexagon socket
No. D25—1 1/4 in. double hexagon socket
No. D26—1 1/2 in. double hexagon socket
No. D28—1 3/4 in. double hexagon socket
No. D30—1 7/8 in. double hexagon socket

Per set

No. G—11 sockets; wt. per set 2 1/2 lbs. \$7.60



No. D2—Chrome-Vanadium Steel

A complete, compact low priced socket set for heavy duty work, obtainable in either cardboard box or metal box.

Set consists of fourteen pieces as follows:

No. D14—3/8 in. double hexagon socket
No. D16—1/2 in. double hexagon socket
No. D18—5/8 in. double hexagon socket
No. D19—3/4 in. double hexagon socket
No. D20—7/8 in. double hexagon socket
No. D21—1 in. double hexagon socket
No. D22—1 1/8 in. double hexagon socket
No. D24—1 1/4 in. double hexagon socket
No. D25—1 1/2 in. double hexagon socket
No. D26—1 3/4 in. double hexagon socket
No. D28—1 7/8 in. double hexagon socket
No. D30—1 in. double hexagon socket
No. D32—1 in. double hexagon socket
No. 4096—Hinge handle, 15 in. long

Per set

No. D2-CB—14 pieces; in cardboard box; wt. per set 5 1/8 lbs. \$12.50

No. D2-MB—14 pieces; in metal box; wt. per set 6 1/4 lbs. 14.20

No. D2-B—Metal box only. 1.70

No. D3—Chrome-Vanadium Steel

The most complete, compact set for all-around work ever offered. Each piece will stand the most severe usage.

Set consists of eighteen pieces packed in black enameled metal box as follows:

No. D14—3/8 in. double hexagon socket
No. D16—1/2 in. double hexagon socket
No. D18—5/8 in. double hexagon socket
No. D19—3/4 in. double hexagon socket
No. D20—7/8 in. double hexagon socket
No. D21—1 in. double hexagon socket
No. D22—1 1/8 in. double hexagon socket
No. D24—1 1/4 in. double hexagon socket
No. D25—1 1/2 in. double hexagon socket
No. D26—1 3/4 in. double hexagon socket
No. D28—1 7/8 in. double hexagon socket
No. D30—1 in. double hexagon socket
No. D32—1 in. double hexagon socket
No. D34—1 1/8 in. double hexagon socket
No. D36—1 3/8 in. double hexagon socket
No. D38—1 1/2 in. double hexagon socket
No. 4096—Hinge handle, 15 in. long, with cross handle.

Per set

No. D3-MB—18 pieces; wt. per set 8 1/2 lbs. \$17.55

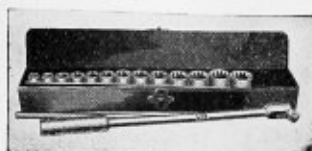
No. D3-B—Metal box only. 1.80

BONNEY SOCKET WRENCHES

STANDARD SERIES SOCKET SETS

No. A2—Chrome-Vanadium Steel

This set can be had either in strong black enameled box or in cardboard box, and contains an assortment of straight wall, double hexagon sockets for taking care of most jobs.



All have 1/2 inch standard square drive.

Set consists of the following sockets and handle:

No.	Size	Material
A14	1/4 in. St. Wall D.H. Soc.	
A16	1/2 in. St. Wall D.H. Soc.	
A18	3/4 in. St. Wall D.H. Soc.	
A19	1 in. St. Wall D.H. Soc.	
A20	1 1/4 in. St. Wall D.H. Soc.	
A22	1 1/2 in. St. Wall D.H. Soc.	
A24	1 3/4 in. St. Wall Soc.	

No.	Size	Material
A25	1 in. St. Wall D.H. Soc.	
A26	1 1/4 in. St. Wall D.H. Soc.	
A28	1 1/2 in. St. Wall D.H. Soc.	
A30	1 3/4 in. St. Wall D.H. Soc.	
A31	2 in. St. Wall D.H. Soc.	
A32	1 in. St. Wall D.H. Soc.	
4096	Hinge Handle 15 in. long.	

Per set

No. A2CB—14 pieces; in cardboard box; wt. per set 4 1/4 lbs. \$14.50

No. A2MB—14 pieces; in metal box; wt. per set 6 1/4 lbs. 16.20

No. A2B—Metal box only..... 1.70

Nos. W, WD and WS Sets
Chrome-Vanadium Steel

Packed in substantial enameled cases with a carrying handle, these sets contain ten sockets as listed below.

No. W Set

Socket No.	Hex. Soc., in.
4014	1/4
4016	1/2
4018	3/4
4019	1
4020	1 1/4
4022	1 1/2
4024	1 3/4
4025	2
4026	2 1/4
4028	2 1/2

No. WD Set

Socket No.	Double Hex. Soc., in.
D14	1/4
D16	1/2
D18	3/4
D19	1
D20	1 1/4
D22	1 1/2
D24	1 3/4
D25	2
D26	2 1/4
D28	2 1/2

No. WS Set

Socket No.	Str. Wall D.H. Soc., in.
A14	1/4
A16	1/2
A18	3/4
A19	1
A20	1 1/4
A22	1 1/2
A24	1 3/4
A25	2
A26	2 1/4
A28	2 1/2

In addition to the above sockets, each set contains one each of the following handles and attachments:

No.	Description
4084	Brace, 13 in. long.
4087	Sliding "T" hdl. 11 in. long.
4090	Extension, 5 in. long.
4091	Extension, 10 in. long.

No.	Description
4092	Cross hdl. for 10 in. ext.
4095	Universal joint.
4097	Reversible ratchet.

Per set

No. W—17 pieces; in metal box; wt. per set 13 lbs. \$24.00

No. WD—17 pieces; in metal box; wt. per set 13 lbs. 24.00

No. WS—17 pieces; in metal box; wt. per set 13 lbs. 25.40

No. WB—Metal box only, for above sets..... 3.00

Nos. R, RD and RS Sets
Chrome-Vanadium Steel

These sets contain exactly the same assortment of sockets as the Nos. W, WD and WS sets as described above, but with a larger number of handles and attachments to care for a greater variety of jobs.

In addition to the sockets, one each of the following

handles and attachments is included:

No.	Description
4081	Offset handle.
4082	"T" handle, 6 in. long.
4084	Brace, 13 in. long.
4085	Speeder, 20 in. long.
4087	Sliding "T" hdl. 11 in. long.

No.	Description
4090	Extension, 5 in. long.
4091	Extension, 10 in. long.
4092	Cross hdl., 10 in. extension.
4095	Universal joint.
4097	Reversible ratchet.

Per set

No. R—Hexagon Sockets; 20 pieces; in metal box..... \$31.10

No. RD—Double Hexagon Sockets; 20 pieces; in metal box 31.10

No. RS—Str. Wall D.H.; Sockets; 20 pieces in metal box. 32.50

Wt. per set 21 pounds.

No. RB—Metal box only, for above sets..... 4.30

SMALL SERIES SOCKETS

Chrome-Vanadium Steel Each

No. T10	1/8 in. Double Hex..	\$0.60
No. T12	3/16 in. Double Hex..	.60
No. T14	1/4 in. Double Hex..	.60
No. T16	5/16 in. Double Hex..	.60
No. T18	3/8 in. Double Hex..	.60
No. T20	7/16 in. Double Hex..	.60
No. T22	1/2 in. Double Hex..	.70
No. T24	5/8 in. Double Hex..	.70
No. T26	3/4 in. Double Hex..	.70
No. T28	7/8 in. Double Hex..	.70
No. T30	1 in. Double Hex..	2.00
No. T32	1 1/4 in. Double Hex..	2.00
No. T34	1 1/2 in. Double Hex..	2.25
No. T36	1 3/4 in. Double Hex..	2.25

SMALL SERIES HANDLES AND ATTACHMENTS

Chrome-Vanadium Steel Each

No. T2	Offset handle	\$1.25
No. T3	Universal joint	2.05
No. T4	Extension, 6 in. long..	.90
No. T5	"T" Handle, 12 in. long	1.25
No. T6	"T" Handle, 17 in. long	1.80
No. T7	Crowfoot attachment, 1/2 in. opening.....	1.00
No. T8	Crowfoot attachment, 3/4 in. opening.....	1.05
No. T9	Speeder	1.70
No. T27	Drag Link Socket ...	.70
No. T28	Ratchet Handle, with lug	3.25

No. T29A—Extra Lug for Ratchet..... .45

No. T30—Hinge Handle 2.50 |

No. T31—Extension, 3 in. long..... .70

SMALL SERIES SOCKET SETS

No. TD—Chrome-Vanadium Steel

A compact set for those who want quality with a minimum investment; 3/8 in. square drive.

Packed complete in black enameled metal case, this set contains one each of the following pieces:

No.	Description
T2	Offset handle.
T3	Universal joint.
T4	Extension handle, 6 in. long.
T5	"T" handle, 12 in. long.

No.	Description
T12	3/8 in. dble. hex. socket.
T14	1/2 in. dble. hex. socket.
T16	5/8 in. dble. hex. socket.
T18	3/4 in. dble. hex. socket.
T20	7/8 in. dble. hex. socket.

Per set

No. TD—9 pieces; wt. per set 2 3/8 lbs. \$9.35

No. TD1—Chrome-Vanadium Steel

All pieces in this set are for 3/8 in. square drive. Packed complete in metal case, finished in black.

Set contains one each of the following pieces:

No.	Description
T2	Offset handle.
T3	Universal joint.
T4	Extension, 6 in. long.
T5	"T" handle, 12 in. long.
T28	Ratchet handle with lug.

No.	Description
T12	3/8 in. dble. hex. socket.
T14	1/2 in. dble. hex. socket.
T16	5/8 in. dble. hex. socket.
T18	3/4 in. dble. hex. socket.
T20	7/8 in. dble. hex. socket.

Per set

No. TD1—10 pieces; wt. per set 2 3/4 lbs. \$12.60

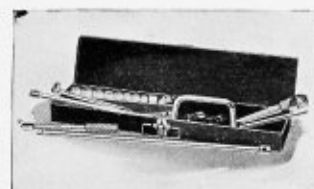
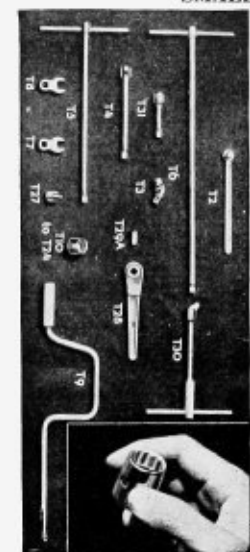
No. TD2—Chrome-Vanadium Steel

A very complete set of 3/8 in. square drive sockets and attachments. Contains 19 pieces in a sturdy metal box as follows:

No.	Description
T9	Speeder.
T10	1/8 in. dble. hex. socket.
T12	3/16 in. dble. hex. socket.
T14	1/4 in. dble. hex. socket.
T16	5/16 in. dble. hex. socket.
T18	3/8 in. dble. hex. socket.
T20	7/16 in. dble. hex. socket.
T22	1/2 in. dble. hex. socket.
T24	5/8 in. dble. hex. socket.
T26	3/4 in. dble. hex. socket.
T27	Drag link socket.
T28	Ratch handle with lug.
T30	Hinge handle.

Per set

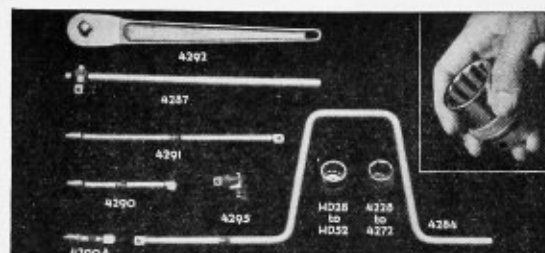
No. TD2—19 pieces; wt. per set 7 1/2 lbs. \$24.70



BONNEY SOCKET WRENCHES

HEAVY DUTY SOCKET SERIES

"MC" BENCH SET



Chrome-Vanadium Steel; 3/4 Inch Square Drive

Hexagon			Double Hexagon		
Nos.	Each	Opening, in.	Nos.	Each	Opening, in.
4228	\$0.90	7/8	HD28	\$0.90	7/8
4230	1.00	1	HD30	1.00	1
4231	1.00	1 1/8	HD31	1.00	1 1/8
4232	1.00	1 1/4	HD32	1.00	1 1/4
4234	1.15	1 1/2	HD34	1.15	1 1/2
4236	1.20	1 3/4	HD36	1.20	1 3/4
4238	1.20	1 7/8	HD38	1.20	1 7/8
4240	1.30	2	HD40	1.30	2
4242	1.30	2 1/8	HD42	1.30	2 1/8
4244	1.30	2 1/4	HD44	1.30	2 1/4
4246	1.55	2 1/2	HD46	1.55	2 1/2
4248	1.55	2 3/4	HD48	1.55	2 3/4
4252	1.80	3	HD50	1.65	2 7/8
4254	2.25	3 1/8	HD52	1.80	3
4256	2.25	3 1/4			
4258	2.50	3 1/2			
4260	2.50	3 3/4			
4264	3.00	4			
4266	3.50	4 1/8			
4268	3.75	4 1/4			
4270	4.00	4 1/2			
4272	4.50	4 3/4			

HEAVY DUTY HANDLES AND ATTACHMENTS

Chrome-Vanadium Steel

No.	Each
No. 4284—Brace	\$5.60
No. 4287—Sliding "T" Handle, 20 in. long	3.25
No. 4288—Hinge handle, 22 in. long	4.00
No. 4289—Cross handle, 16 1/2 in. long, for No. 4288	1.00
No. 4290—Extension, 8 1/2 in. long	2.25
No. 4290A—Extension, 4 in. long	1.95
No. 4291—Extension, 17 in. long	2.75
No. 4292—Reversible Ratchet Handle, 20 in. long	10.00
No. 4295—Universal Joint	6.80

HERCULES HEAVY DUTY SOCKET SETS

Nos. H and HD Sets
Chrome-Vanadium Steel

These sets contain 3/4 in. drive sockets and attachments, packed in a strong black enameled metal case.

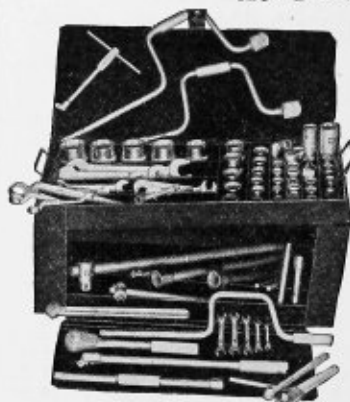
Each set contains one each of the following sockets.

H Set Hexagon Sockets	HD Set D.H. Sockets	Open- ing, in.	H Set Hexagon Sockets	HD Set D.H. Sockets	Open- ing, in.
4230	HD30	1 1/8	4240	HD40	1 1/4
4231	HD31	1 1/4	4244	HD44	1 3/4
4232	HD32	1 1/2	4246	HD46	1 7/8
4234	HD34	1 3/4	4248	HD48	2
4236	HD36	2	4252	HD52	2 1/4

Each of the above sets also includes each of the following attachments.

- No. 4287—Sliding "T" Handle, 20 in. long
- No. 4290—Extension, 8 1/2 in. long
- No. 4291—Extension, 17 in. long
- No. 4292—Reversible Ratchet Handle, 20 in. long.

No. H—14 pieces; wt. per set 27 lbs.	Per set \$34.10
No. HD—14 pieces; wt. per set 27 lbs.	34.10



The Bonney "MC" Bench Set is well adapted for all-around work in the garage. Mechanics everywhere consider it to be an all-purpose set hard to beat. Every one of the 73 pieces is light in weight, strong and sturdy and carries the well-known Bonney guarantee not to break or spread. The black metal chest containing the set is 23 1/2 in. long, 12 in. wide, 9 in. high and has a removable tray and drop front.

Contained in the "MC" set are one each of the following:

Sockets

No. T12—3/8 in. dble. Hex.	No. D30—1 1/2 in. dble. Hex.
No. T14—1/2 in. dble. Hex.	No. D31—1 3/4 in. dble. Hex.
No. T16—5/8 in. dble. Hex.	No. D32—1 in. dble. Hex.
No. T18—3/4 in. dble. Hex.	No. 4001—1 1/2 in. drag link
No. T20—7/8 in. dble. Hex.	No. 4002—1 3/4 in. drag link
No. 4114—7/8 in. dble. square	No. LD26T—1 1/2 in. Extra Deep
No. 4116—1 in. dble. square	No. LD32—1 in. Extra Deep
No. 4118—1 1/8 in. dble. square	No. HD34—1 1/2 in. Heavy Duty
No. D14—7/8 in. dble. Hex.	No. HD36—1 3/4 in. Heavy Duty
No. D16—1 in. dble. Hex.	No. HD40—1 1/2 in. Heavy Duty
No. D18—1 1/8 in. dble. Hex.	No. HD44—1 3/4 in. Heavy Duty
No. D19—1 1/4 in. dble. Hex.	No. HD46—1 7/8 in. Heavy Duty
No. D20—1 1/2 in. dble. Hex.	No. HD48—2 in. Heavy Duty
No. D21—1 3/4 in. dble. Hex.	No. HD52—2 1/4 in. Heavy Duty
No. D22—1 7/8 in. dble. Hex.	No. 2866—1/2 in. Crowfoot Box
No. D24—3/4 in. dble. Hex.	No. 2868—3/8 in. Crowfoot Box
No. D25—1 in. dble. Hex.	No. 2870—5/8 in. Crowfoot Box
No. D26—1 1/4 in. dble. Hex.	No. 2874—3/4 in. Crowfoot Box.
No. D28—1 1/2 in. dble. Hex.	

Handles and Attachments

- No. 4081—Offset
- No. 4084—Brace, 13 in. long
- No. 4085—Speeder, 20 in. long
- No. 4087—Sliding "T"
- No. 4090—Extension, 5 in. long
- No. 4091—Extension, 10 in. long
- No. 4092—Cross Handle
- No. 4095—Universal Joint
- No. 4096—Hinge Handle
- No. 4097—Reversible Ratchet
- No. T2—Offset
- No. T3—Universal Joint
- No. T4—Extension, 6 in. long
- No. T5—"T" Handle, 12 in. long
- No. T9—Speeder
- No. T30—Hinge Handle
- No. T28—Ratchet
- No. 4287—Sliding "T"
- No. 4290—Extension, 8 1/2 in. long
- No. 4291—Extension, 17 in. long.

Wrenches

- No. H10—7/8 & 1 in. Engineers
- No. H12—1 & 1 1/8 in. Engineers
- No. H14—1 1/4 & 1 1/2 in. Engineers
- No. H16—1 1/2 & 1 3/4 in. Engineers
- No. H18—1 3/4 & 2 in. Engineers
- No. 1725B—1 1/2 & 1 3/4 in. Engineers
- No. 1727—1 3/8 & 1 1/2 in. Engineers
- No. 1729—1 1/2 & 1 3/4 in. Engineers
- No. 1731A—1 3/4 & 2 in. Engineers
- No. 1033C—1 1/2 & 1 in. Engineers
- No. 2725B—1 1/2 & 1 3/4 in. R. Angle
- No. 2727—1 3/8 & 1 1/2 in. R. Angle
- No. 2804—3/4 & 1 in. D.H. Box
- No. 2805—1 1/2 & 1 3/4 in. D.H. Box
- No. 2807—1 3/4 & 2 in. D.H. Box
- No. 2809—2 & 2 1/4 in. D.H. Box.

No. MC—73 pieces; wt. per set 62 lbs.	Per set \$101.00
No. MCB—Metal Box only.	11.25

BONNEY WRENCHES

ENGINEER'S



Zenel Steel

Concave handle allows the mechanic to obtain a firm, comfortable grip on the wrench. A reduction in the width of the wrench head also offers additional advantages.

Nos.	Each	U.S.S. bolt size	Hex. head cap screw	S.A.E. Standard screw and nut	Openings milled	Ex-treme lgth.	Thick-ness of head
3721	\$0.70	1/8 -	1/8 - 1/8	.....	1 1/8 - 3/8	4 1/4	1 1/8
3921	.70	1/8 - 1/8	1/8 -	.....	1 1/8 - 3/8	4 1/4	1 1/8
3723	.75	.....	1/8 - 1/4	.....	3/8 - 1/2	4 3/4	1 1/8
3723A	.75	.....	1/8 - 1/4	.....	3/8 - 1/2	4 3/4	1 1/8
3923	.75	1/8 - 1/4	1/8 -	.....	3/8 - 1/2	4 3/4	1 1/8
3725	.90	.....	1/4 - 1/8	1/4 - 1/8	1/2 - 1/2	5 3/4	1 1/4
3725B	.90	1/4 -	1/8 - 3/8	1/8 - 3/8	1/2 - 1/2	5 3/4	1 1/4
3925	.90	1/4 - 1/8	1/8 -	.....	1/2 - 1/2	5 3/4	1 1/4
3727	1.05	.....	3/8 - 1/8	3/8 - 1/8	5/8 - 5/8	7	1 3/8
3927	1.05	.....	3/8 - 1/8	.....	5/8 - 5/8	7	1 3/8
3927C	1.05	.....	3/8 - 1/8	.....	5/8 - 5/8	7	1 3/8
3928S	1.35	.....	1/2 - 1/8	1/2 - 1/8	5/8 - 5/8	8	1 3/8
3729	1.35	.....	1/2 - 1/2	1/2 - 1/2	5/8 - 5/8	8	1 3/8
3929	1.35	.....	1/2 - 1/2	.....	5/8 - 5/8	8	1 3/8
3731	1.80	.....	1/2 - 1/8	1/2 - 1/8	5/8 - 5/8	9 1/2	1 3/8
3731A	1.80	.....	1/2 - 1/8	1/2 - 1/8	5/8 - 5/8	9 1/2	1 3/8
3931	1.80	.....	1/2 - 1/8	1/2 - 1/8	5/8 - 5/8	9 1/2	1 3/8
3933A	1.80	.....	5/8 - 1/8	5/8 - 1/8	5/8 - 1/8	9 1/2	1 3/8
3933	1.80	.....	5/8 - 1/8	5/8 - 1/8	5/8 - 1/8	9 1/2	1 3/8
3733	2.25	.....	5/8 - 3/4	5/8 - 3/4	5/8 - 1	11	1 3/8
3933C	2.25	.....	5/8 - 3/4	5/8 - 3/4	5/8 - 1	11	1 3/8
3934	2.25	.....	5/8 - 3/4	5/8 - 3/4	5/8 - 1	11	1 3/8
3934A	2.25	.....	5/8 - 3/4	5/8 - 3/4	5/8 - 1	11	1 3/8
3935	2.25	.....	5/8 - 3/4	5/8 - 3/4	5/8 - 1	11	1 3/8
3735	3.15	.....	3/4 - 1/8	3/4 - 1/8	1 - 1 1/8	12 1/2	1 3/8
3937	3.15	.....	3/4 - 1/8	3/4 - 1/8	1 - 1 1/8	12 1/2	1 3/8
3737	3.15	.....	3/4 - 1	3/4 - 1	1 1/8 - 1 1/4	12 1/2	1 3/8

ENGINEER'S WRENCH SETS



No. Z25 Set, Zenel Steel

A set of six engineers' wrenches; can be had in a cardboard box or a handy leatherette roll.

Set contains six wrenches, one each of Nos. 3723, 3925, 3927C, 3928S, 3731A and 3933C, as described above.

Per set

No. Z25CB—6 wrenches, in cardboard box.....\$8.05
No. Z25LR—6 wrenches, in leatherette roll..... 8.95

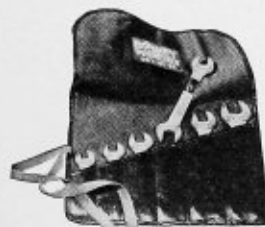
No. Z26 Set, Zenel Steel

A set of eight engineer's wrenches; can be had in a handy leatherette roll only.

Set contains eight wrenches, one each of Nos. 3723, 3725, 3725B, 3925, 3727, 3729, 3929 and 3731A, as described above.

Per set

No. Z26LR—8 wrenches in leatherette roll.....\$9.90



No. 25 Set, Chrome-Vanadium Steel

A set assembled to offer the mechanic and general user a wrench set to cover all of the most popular sizes of nuts and bolts. Each wrench has a different size opening in each end.

Set consists of six wrenches, one each of Nos. 1723, 1025, 1027C, 1028S, 1731A and 1033C, as described in next column.

Per set

No. 25CB—6 wrenches in cardboard box.....\$6.40
No. 25LB—6 wrenches, in leatherette roll..... 7.25

ENGINEER'S



Chrome-Vanadium Steel

A light, well balanced, serviceable wrench with thin pear shaped head. Rigidly inspected and fully guaranteed.

Nos.	Each	U.S.S. bolt size	Hex. head cap screw	S.A.E. Standard screw and nut	Openings milled	Ex-treme lgth.	Thick-ness of head
1020	\$0.45	.....	1/8 - 1/8	.....	1/4 - 1/8	3	3/8
1721	.50	1/8 -	1/8 - 1/8	.....	1/8 - 3/8	3 3/8	1/8
1021	.50	1/8 - 1/8	1/8 -	.....	1/8 - 3/8	3 3/8	1/8
1722	.50	1/8 -	1/8 - 1/4	.....	1/8 - 1/8	4 1/8	1/8
1723	.50	.....	1/8 - 1/4	.....	1/8 - 1/8	4 1/8	1/8
1022	.60	1/8 - 1/4	1/8 - 1/8	.....	1/8 - 1/8	4 1/8	1/8
1023	.60	1/8 - 1/4	1/8 - 1/8	.....	1/8 - 1/8	4 1/8	1/8
1723A	.60	.....	1/8 - 1/8	.....	1/8 - 1/8	4 1/8	1/8
1724	.70	.....	1/8 - 3/8	.....	1/8 - 1/8	5 1/8	1 1/8
1024	.70	1/8 - 1/8	.....	.....	1/8 - 1/8	5 1/8	1 1/8
1725	.70	.....	1/4 - 1/8	1/4 - 1/8	1/8 - 1/8	5 1/8	1 1/8
1725A	.70	.....	1/4 - 3/8	1/4 - 3/8	1/8 - 1/8	5 1/8	1 1/8
1725B	.70	1/4 -	1/8 - 3/8	1/8 - 3/8	1/8 - 1/8	5 1/8	1 1/8
1025	.70	1/4 - 1/8	1/8 -	.....	1/8 - 1/8	5 1/8	1 1/8
1726	.85	1/4 -	1/8 - 1/8	1/8 - 1/8	1/8 - 1/8	6 1/8	1 1/8
1026	.85	1/4 - 3/8	1/8 -	.....	1/8 - 1/8	6 1/8	1 1/8
1727	.85	.....	3/8 - 1/8	3/8 - 1/8	1/8 - 1/8	6 1/8	1 1/8
1027	.85	1/8 - 3/8	.....	.....	1/8 - 1/8	6 1/8	1 1/8
1027C	.85	.....	3/8 -	.....	1/8 - 1/8	6 1/8	1 1/8
1028	1.05	1/8 - 1/8	.....	.....	1/8 - 1/8	7 1/8	1 1/8
1728	1.05	.....	3/8 - 1/2	3/8 - 1/2	1/8 - 1/8	7 1/8	1 1/8
1028S	1.05	.....	1/8 -	.....	1/8 - 1/8	7 1/8	1 1/8
1729	1.05	.....	1/8 - 1/2	1/8 - 1/2	1/8 - 1/8	7 1/8	1 1/8
1029	1.05	3/8 - 1/8	.....	.....	1/8 - 1/8	7 1/8	1 1/8
1730	1.05	.....	1/8 - 1/8	1/8 - 1/8	1/8 - 1/8	7 1/8	1 1/8
1030	1.05	3/8 - 1/2	.....	.....	1/8 - 1/8	7 1/8	1 1/8
1731	1.40	.....	1/2 - 1/8	1/2 - 1/8	1/8 - 1/8	9	1 3/8
1731A	1.40	.....	1/2 - 5/8	1/2 - 5/8	1/8 - 1/8	9	1 3/8
1031	1.40	1/8 - 1/2	.....	.....	1/8 - 1/8	9	1 3/8
1731B	1.40	.....	1/2 - 5/8	1/2 - 5/8	1/8 - 1/8	9	1 3/8
1732A	1.40	.....	1/2 - 3/4	1/2 - 3/4	1/8 - 1/8	9	1 3/8
1032	1.40	1/8 - 1/8	.....	.....	1/8 - 1/8	9	1 3/8
1732	1.40	.....	1/8 - 3/4	.....	1/8 - 1/8	9	1 3/8
1033A	1.40	1/2 -	5/8 -	5/8 - 5/8	1/8 - 1/8	9	1 3/8
1033	1.40	1/2 - 1/8	5/8 -	5/8 -	1/8 - 1/8	9	1 3/8
1733	1.90	1/2 -	5/8 - 3/4	1/8 - 1/8	1/8 - 1/8	10 1/2	1 3/8
1033C	1.90	.....	.....	5/8 - 1/8	1/8 - 1/8	10 1/2	1 3/8
1034	1.90	1/2 - 5/8	5/8 -	1/8 - 1/8	1/8 - 1/8	10 1/2	1 3/8
1734	1.90	1/2 -	5/8 - 3/8	1/8 -	1/8 - 1/8	10 1/2	1 3/8
1034A	1.90	.....	.....	5/8 - 3/4	1/8 - 1/8	10 1/2	1 3/8
1035	1.90	1/8 - 5/8	.....	.....	1/8 - 1/8	10 1/2	1 3/8
1735	2.65	.....	3/4 - 3/8	1/8 -	1 - 1 1/8	12	1 3/8
1036	2.65	1/8 - 3/4	.....	.....	1/8 - 1/8	12	1 3/8
1736	2.65	.....	3/4 - 1	1/8 - 1/8	1 - 1 1/8	12	1 3/8
1037	2.65	5/8 - 3/4	.....	.....	1/8 - 1/8	12	1 3/8
1737	2.65	.....	3/4 - 1	.....	1/8 - 1/8	12	1 3/8
1038	4.15	5/8 - 3/8	.....	.....	1/8 - 1/8	14	1 3/8
1738	4.15	.....	3/4 - 1 1/8	.....	1/8 - 1/8	14	1 3/8
1739	4.15	3/4 -	1 - 1 1/8	1/8 -	1/8 - 1/8	14	1 3/8
1039	4.15	3/4 - 3/8	1 -	1/8 - 1/8	1/8 - 1/8	14	1 3/8
1739A	4.15	3/4 -	1 - 1 1/4	1/8 -	1/8 - 1/8	14	1 3/8
1739B	4.15	1 1/8 - 1 1/4	1/8 - 1/8	14	1 3/8
1040	4.15	3/4 - 1	1 - 1 1/8	1/8 - 1/8	1/8 - 1/8	14	1 3/8
1041	7.50	3/4 - 1	1 - 1 1/8	1/8 - 1/8	15 1/2	1 3/8

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